



The Wisconsin State Legislature
Senate Committee on Economic Development
Wisconsin State Capitol Building
Madison, WI 53707

January 6, 2010

Dear Senate Committee Members:

The Wisconsin Geographic Information Coordination Council (WIGICC) represents a broad-based mapping sciences and geographic information systems (GIS) community throughout the State of Wisconsin. The WIGICC community consists of public local, regional, state and federal partners, and private and non-profit organizations that employ professional staff in the geographic information, cartographic, land surveying, photogrammetric and other related disciplines.

WIGICC commends the Committee's support for the geospatial profession, as evidenced by your interest and deliberation of Assembly Bill 271. However, WIGICC has concerns that the passing of AB 271 with the current language will impact a variety of GIS and other related professionals. The WIGICC Council has heard from our constituent groups that this bill could have significant negative impacts including, increased costs and lost jobs. WIGICC would like the Committee to consider several important issues written within the bill, which if revised could clarify and enhance the understanding of the proposed legislative bill's intent. Of greatest concern are the proposed requirements of incorporating map disclaimer information to maps, and the definition of the practice of land surveying as it relates to other mapping sciences professional activities.

We have prepared a supporting document to assist you in understanding the effects of this bill on the professionals WIGICC represents. This attached document includes the following information:

1. An explanation of what WIGICC is and who we represent.
2. Bill information that affects our constituents and yours.
3. Information relating to map disclaimer use and the definition of land surveying activities.
4. Suggested solutions and changes to the bill.

WIGICC appreciates the efforts taken to prepare and deliberate upon AB 271. We hope that the Senate Committee will address WIGICC's concerns and amend the bill to include provisions to protect the efforts and economic viability of all involved in these very directly connected professions.

Thank you for considering WIGICC's concerns related to Assembly Bill 271.

Respectfully,

Gregg Moore, Chairperson
Wisconsin Geographic Information Coordination Council

Eau Claire County Board Chairperson
721 Oxford Avenue, Room 2570
Eau Claire, WI 54703

Cc: WIGICC Council Members
WIGICC Stakeholder Network Members
Curtis Pulford, Wisconsin State Geographic Information Officer
Howard Veregin, Wisconsin State Cartographer

Written Testimony Regarding Wisconsin Assembly Bill 271



Prepared by the Wisconsin Geographic Information
Coordination Council (WIGICC)
Gregg Moore, Chairperson

January 7, 2010

Senate Committee on Economic Development

The Wisconsin Geographic Information Coordination Council (WIGICC) is an organization that serves as the primary forum and coordinating body for the geographic information and technology community in the State of Wisconsin. Its role is to:

- Provide statewide leadership, guidance, and strategic planning;
- Facilitate the equitable creation, access and sharing of geographic information;
- Evaluate and promote geographic information standards, best practices, and policies;
- Identify funding to support and maintain geographic information; and
- Advise and consult with decision makers on the appropriate use of geographic information to address critical societal issues.

WIGICC has important concerns related to AB271 because the proposed legislation may impact a variety of Geographic Information Systems (GIS) professionals' ability to legally perform their work. We wholeheartedly support the Wisconsin Society of Land Surveyors in their efforts to clarify their profession so that legal documents and maps, which are filed at the County Register of Deeds, are prepared with the utmost accuracy by qualified professionals. It is our understanding that the legislative intent is to clarify the responsibilities of practicing professional surveyors and to assist them in the clarification and enforcement of surveying activities that are currently being completed by non-licensed individuals.

The following portions of the most current version (substitute amendment) of the wording of the bill as interpreted by the Legislative Reference Bureau are of interest to WIGICC and its stakeholders:

Under current law, with certain exceptions, a person may not practice land surveying or represent that he or she is a land surveyor unless the land surveyor section (section) of the examining board of architects, landscape architects, professional engineers, designers and land surveyors (board) has issued a certificate of registration or permit to the person. "Land surveying" is defined as determining the location of land boundaries and boundary corners; preparing maps that show the shape and area of tracts of land or subdivisions or the layout of roads, streets, or rights-of-way; or preparing official plats or maps of land in this state.

This substitute amendment replaces "land surveying" with the term "practice of professional land surveying" and defines the term as any of the following:

1. Any service comprising the determination of the location of the boundaries of one or more tracts of land or the boundaries of any of the following interests in real property: a) the layout and rights-of-way of roads or streets; b) air or property rights; or c) public or private easements.
2. Designing or coordinating designs for the purpose of platting or subdividing land into smaller tracts.
3. Placing, replacing, restoring, or perpetuating monuments in or on the ground to evidence the location of a point that is necessary to describe the shape, area, and boundaries of one or more tracts of land or the subdivision or consolidation of one or more tracts of land or that is necessary to describe the boundaries of any interest in real property identified in item 1.
4. Preparing maps that depict any interest in real property identified in item 1. for the purpose of establishing the boundaries of any such interest in real property.
5. Preparing any of the following:
 - a) an official map established or amended by a city, established or amended by a village, or adopted by a town;
 - b) an assessor's plat;
 - c) a map or plat of cemetery lands;

- d) a subdivision plat, certified survey map, or correction instrument;
 - e) a condominium plat or correction instrument; or
 - f) a project and time-share plat.
6. Performing cartographic, construction, or geodetic surveying in connection with any of the practices specified in items 1. to 5.

After July 1, 2018, the substitute amendment requires employees of this state and public utilities to obtain a license or permit to engage in the practice of professional land surveying. Such employees are exempt from the certificate of registration and permit requirements under current law. The substitute amendment creates a new exemption from licensure for employees of a cooperative association organized under the laws of this state for the purpose of producing or furnishing heat, light, power, or water for its members while the employees are engaged in the practice of professional land surveying. This exemption from licensure does not apply after July 1, 2018. The substitute amendment creates an exemption from licensure for employees of the Department of Agriculture, Trade and Consumer Protection (DATCP) who are engaged in establishing the boundaries of easements acquired by DATCP under the Conservation Reserve Enhancement Program (CREP), if the DATCP employees include on any map prepared in connection with a CREP easement a written disclaimer indicating that the map has not been prepared by a professional land surveyor licensed under chapter 443 of the statutes, and has been prepared using protocols established by the Federal Department of Agriculture under the Wetlands Reserve Program, 16 USC 3837 to 3837f.

The substitute amendment also exempts from licensure employees of state agencies and local units of government who operate a land information system or geographic information system and who prepare maps on that system if the maps show approximate property boundaries and if the maps contain the following or a substantially similar disclaimer:

“This map shows the approximate relative location of property boundaries but was not prepared by a professional land surveyor. This map is provided for informational purposes only and may not be sufficient or appropriate for legal, engineering, or surveying purposes.”

The substitute amendment also exempts from licensure persons who prepare any of the following maps:

- a) a map used in connection with a regulatory program established by, or in connection with the exercise of police powers by, or in connection with the enforcement of the public trust doctrine or any other constitutional authority by, the state or a local unit of government or
- b) a map showing the boundaries or the shape and area of land designated as forest cropland or as managed forest land by the Department of Natural Resources (DNR), if the map includes a disclaimer substantially similar to the disclaimer required under the substitute amendment on certain maps prepared by employees of state agencies and local units of government who operate land information systems and geographic information systems.

Under current law, with limited exceptions, a county register of deeds may not record a map, plat, survey, or other document within the definition of land surveying unless the map, plat, survey, or other document contains the signature and seal of the land surveyor under whose charge the document was prepared. This limitation on recording does not apply to a deed, contract, or other recordable document prepared by an attorney, or to a transportation project plat prepared by a state agency if the plat conforms to the requirements established for transportation project plats under current law. This substitute amendment requires that a map, plat, survey, or other document within the definition of the practice of professional land surveying bear the signature and seal of the professional land surveyor in order for the map, plat,

survey, or other document to be recorded with the county register of deeds, and creates two additional exceptions to the signature and seal requirements.

Under the substitute amendment, the signature and seal of a professional land surveyor is not required on any of the following documents:

- a) a map that depicts the approximate boundaries or the shape and area of one or more tracts of land or one or more interests in real property if either a legal description of the tract or tracts of land or interest or interests in real property, or a map, survey, plat, or other document that depicts the tract or tracts of land or interest or interests in real property and that bears the signature and seal of the professional land surveyor who prepared the map, plat, survey, or other document is incorporated into or attached to and submitted for recording with the map; and b) a map that depicts the boundaries of CREP easement acquired by DATCP if the map is prepared in accordance with the requirements established in this substitute amendment.

Assembly Bill 271 – WIGICC Constituency Concerns

WIGICC has two general concerns.

1. Map Disclaimers (including GIS hard copy and web mapping/digital maps) Issue:

The Map Disclaimer requirements in AB271 could require additional staffing resources and may hinder public and private sector organizations in carrying out professional responsibilities that involve mapping.

The Map Disclaimer requirements of concern appear on page 6 of AB-271 (Section 2. s. 16.967), and on page 35 (Section 101 s. 443.14). In particular, Section 2 states:

"Ensure that state agencies and local governmental units with land information responsibilities include on any map that depicts the boundary of one or more tracts of land, or of one or more interests in real property, the following or a substantially similar disclaimer if the map was prepared using the land information system, but was not prepared by a professional land surveyor....:

"This map shows the approximate relative location of property boundaries but was not prepared by a professional land surveyor. This map is provided for informational purposes only and may not be sufficient or appropriate for legal, engineering, or surveying purposes".

In common usage, the word "map" is defined as: "A representation, usually on a plane surface, or a region, such as the surface of the earth". It follows that, "any map" may reasonably be interpreted to include a broad range of representations of areas on the earth's surface drawn to scale.

As with the portion of Section 65 cited on page 2 of this document, here the term "tract of land" may be defined as encompassing any large area or expanse of land. It follows that the phrase "...any map that depicts the boundary of one or more tracts of land, or of one or more interests in real property", when taken literally, could be interpreted to mean any type of map including a representation of an expanse of land. For example, that could include any map of all or any portion of the state of Wisconsin, on fixed media or on a computer screen, depicted at any scale. Public and Private sector organizations create and/or use a multitude of such maps in the course of their daily responsibilities, which are intended for general reference or to convey other geographically-related information, and which are

clearly not intended as survey products or representations of legal property boundaries. Here are a few examples:

- DNR Watershed Management Map: <http://dnr.wi.gov/org/gmu/sidebar/whatis.htm#watersheds>
- DNR WebView Interactive Map: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=webview>
- DATCP Livestock Siting Interactive Map: <https://datcpgis.wi.gov/livestock/>
- Continental Mapping Services <http://www.continentalmapping.com/services.html>
- Mapping Specialists Mapping Services <http://www.mappingspecialists.com/products/catalog>
- Various maps linked from the Wisconsin State Cartographer's Office "Wisconsin State Maps" web page: <http://www.sco.wisc.edu/maps/state.php>
- University of Wisconsin – Milwaukee Cartographic & GIS Laboratory <http://www4.uwm.edu/cgis/>

Potential Solutions:

A. If disclaimers must be part of the bill, they should be limited to maps where dimensions and/or a graphic measurement scale of 1"=100' or greater, if the map was not prepared and stamped by a licensed professional land surveyor. In practice, a property line on a non-survey grade map, at a scale of more than 1"=100', is not intended to determine the exact positional boundary of a tract of land. This could eliminate the need for the exemptions in the bill language.

B. Include new wording stating that state agencies could comply with the Map Disclaimer requirement by using a reasonable interpretation of the existing language. For example: "State agencies may use discretion in determining whether the Map Disclaimer requirement applies to a particular map." This alternative would address the concerns of agencies, but does not address the many private sector mapping operations in Wisconsin, or consider the ever-widening use of national and international GIS web-based mapping services provided by firms such as the Google, Microsoft and Garmin services firms. Those services are now used within many aspects of personal and business use, often integrated for tasks related to finding locations, directions to, and depiction of 'tracts of land'.

2. Definition of the "Practice of Professional Land Surveying"

Many professionals, who are not land surveyors, may be cited as infringing on the practice of Land Surveying without a license. The expansion of the definition of land surveying will have great potential for increased costs and lost jobs.

AB271 significantly expands the requirement for a surveying license. The bill as currently read, replaces "land surveying" with the term "practice of professional land surveying" and defines the term as any of the following:

1. Any service comprising the determination of the location of the boundaries of one or more tracts of land or the boundaries of any of the following interests in real property: a) the layout and rights-of-way of roads or streets; b) air or property rights; or c) public or private easements.
2. Designing or coordinating designs for the purpose of platting or subdividing land into smaller tracts.
3. Placing, replacing, restoring, or perpetuating monuments in or on the

ground to evidence the location of a point that is necessary to describe the shape, area, and boundaries of one or more tracts of land or the subdivision or consolidation of one or more tracts of land or that is necessary to describe the boundaries of any interest in real property identified in item 1.

4. Preparing maps that depict any interest in real property identified in item 1. for the purpose of establishing the boundaries of any such interest in real property.

5. Preparing any of the following deliverables:

- a) an official map established or amended by a city, established or amended by a village, or adopted by a town;
- b) an assessor's plat;
- c) a map or plat of cemetery lands;
- d) a subdivision plat, certified survey map, or correction instrument;
- e) a condominium plat or correction instrument; or
- f) a project and time-share plat.

6. Performing cartographic, construction, or geodetic surveying in connection with any of the practices specified in items 1. to 5.

In common usage, the term "tract of land" has a broad definition encompassing any large area or expanse of land (e.g., "tract" defined as: "An expanse of land"¹, or "tract of land" defined as "A very large area of land"²). It follows that "Any service comprising the determination of the location of the boundaries of one or more tracts of land" could be reasonably interpreted to include a wide variety of GIS activities that do not currently require a surveying license. As now worded, AB271 partially addresses this concern by creating several new exemptions from Land Surveying licensure for state employees (often GIS professionals) engaged in certain mapping activities required to carry out regulatory or other responsibilities established by the state legislature; for example, determining the boundaries of easements acquired by DATCP under the Conservation Reserve Enhancement Program (CREP).

On the one hand, inclusion of the various exemptions is an important improvement in the bill, since without the exemptions state agency employees currently carrying out those tasks would likely need to become licensed Professional Land Surveyors to be in compliance with the bill. Unfortunately, the need for these exemptions serves to point out potential problems in the bill resulting from the overly broad and vague definition of Professional Land Surveying.

The GIS community's concerns about the effects of AB271 also include the requirements discussed under "Cartographic Surveying", (a term not in common use among cartographers, surveyors or GIS professionals). The vague definition of Cartographic Surveying, together with a lack of clarity about the need for identifying such a practice in defining Professional Land Surveying creates the appearance that some mapping activities carried out by GIS professionals may require a surveying license in the future. Cartographic surveying as defined in the bill would include photogrammetry, topographic aerial mapping and many other widely used imagery processes to map areas on and above the earth. This may require much of the GIS, photogrammetry and geospatial community who collect and process such data to become licensed surveyors.

Non-GIS professionals could also be affected by the construction survey requirement. Construction inspectors who utilize survey techniques to verify construction activities, could be required to become a licensed surveyor. This may impact the construction industry in a manner that WIGICC considers unnecessary.

Potential Solutions:

WIGICC recommends clarification of surveying practices using language adopted by the National Council of Examiners for Engineering and Surveying (NCEES), the organization which seeks to establish consistent laws for Land Surveying and Engineering across the country. In 1999 and 2000, a Task Force comprised of representatives from five Surveyor professional associations and two GIS professional associations issued recommendations for clarifying respective GIS roles and responsibilities. These recommendations, described in the “GIS/LIS Addendum to the Report of the Task Force on the NCEES Model Law for Surveying”:

http://www.oregon.gov/DAS/EISPD/GEO/coordination/docs/GIS_LIS_report.pdf , were adopted by the NCEES in August, 2000.

Specifically, Section C (“Inclusions and Exclusions of GIS-related Practice”) of the NCEES Model Law, provides a complete list of “Activities Included within Surveying Practice” and “Activities Excluded from Surveying Practice” from Appendix D of the “GIS/LIS Addendum to the Report of the Task Force on the NCEES Model Law for Surveying”. The NCEES listing of Activities Included within Surveying Practice uses the terms “authoritative location” and “survey product” several times to describe and help clarify “activities that must be accomplished under the responsible charge of a Professional Surveyor or Land Surveyor”.

The “cartographic surveying” portion of the bill is particularly problematic because of its vague definition. WIGICC believes that additional specificity in this language is needed, (e.g. exempting aerial survey photogrammetry and LIDAR imagery). Additional specificity is also needed for parcel mapping activities that are performed at a county level. Parcel mapping is based on the current deeds and other official map documents filed at the county by licensed surveyors. Clarification that utilizing filed documents to create maps that “depict” boundaries, is not a violation of activities as defined in the bill is requested.

Relating to construction survey, WIGICC requests that the wording be clarified and that construction activities, such as verification of locations, quantities and general locating for determination of project specificity while doing construction inspection activities be exempted from the requirement.

WIGICC also recommends that a concise differentiation between a map and an official map filed at the County Register of Deeds for the purpose of depicting boundaries be developed. As stated several times throughout the bill, but specifically above, (c) a map or plat of cemetery lands;), a map could be simply a map that a community needs to have printed to write names on the plots for their cemetery. A plat is actually laid out as plots with dimensions and directions for “use in determining boundaries”, not for “depiction of boundaries”. Determining boundaries is what a surveyor should do, depicting boundaries is what a general map is used for. The two are completely separate functions and do not have the same value. The word “*depicting*” should be removed from the language in the bill. The wording should be specific that “maps depict” and “plats determine” location of such things as boundaries.

Conclusions:

GIS, mapping and cartography are very complex and highly encompassing fields of profession, spanning out over several disciplines. There are many overlapping elements between surveying, GIS, photogrammetry, engineering and many other mapping sciences disciplines. WIGICC is concerned that the language currently in the bill unintentionally separates these overlapping elements which can create uncertainty for those working in these professional disciplines.

WIGICC is also concerned that the use of disclaimers may present map makers and map users with additional burdens and challenges.

In closing, WIGICC requests that the Senate Committee on Economic Development closely review the wording intentions of the bill and address these concerns in the best interests of the professionals working for public, private and non-profit organizations operating within the State of Wisconsin.

Thank you for your consideration.