

# Impact of the New Surveying and Spatial Information Regulation 2012

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## ABSTRACT

*The Surveying and Spatial Information Regulation 2012 commenced on 1 September 2012, replacing the Surveying and Spatial Information Regulation 2006. The objectives of the Regulation are to ensure the competency of surveyors, maintain the integrity of the cadastre for New South Wales, ensure measurement and marking standards are delivered from modern surveying and communication technologies (including E-Plan) and street addressing is integrated spatial information. This paper outlines a number of reforms that were introduced in the 2012 Regulation. These include:*

- *New definition for Bench Marks, to assist E-Plan.*
- *Survey marks (i.e. PMs, SSs and BMs) used to define the datum of the survey are treated similarly.*
- *Ensure only reliable survey marks are used to define the datum line of the survey.*
- *Measurement accuracies amended to suit instrument specification and industry expectations.*
- *Insist that all Lots are described by complete information to facilitate E-Plan. The misclose tolerance for Residue Lots was relaxed.*
- *Minor reform in marking requirements for surveys.*
- *Street address of all Lots is a new requirement to facilitate the integration of land titles with spatial information.*
- *Reforms for the 3-dimensional cadastre identified in the early consultation did not eventuate in the final Regulation.*

**KEYWORDS:** *Bench marks, complete dimensions, measurement accuracy, street address.*

## 1 INTRODUCTION

Under the Subordinate Legislation Act 1989 (NSW Legislation, 2012a), all statutory rules (i.e. regulations) must be remade every 5 years to ensure they remain relevant and current to government, community and industry needs. The Surveying and Spatial Information Regulation 2006 (NSW Legislation, 2012b) had previously been granted an extension of 12 months for the remake and was due to be repealed on 1 September 2012. Consultation with the surveying and spatial information industry during 2010-2012 ensured that emerging issues and needs were addressed in the remake of the Regulation.

The Regulation is made under the Surveying and Spatial Information Act 2002 (NSW Legislation, 2012c). The Act incorporates all aspects of the Regulation and oversight of land and mining surveying in NSW. The major objective of the Act is to ensure the maintenance

and on-going development of the State survey control network, which provides a reliable and accurate spatial referencing system underpinning surveying, land information and mapping systems in NSW.

In order to achieve this objective, the Act requires that surveyors must be registered and must comply with minimum standards of education and competency. The Act establishes the Board of Surveying and Spatial Information (BOSSI, 2013) to oversee the registration of surveyors, set professional education requirements and conduct disciplinary investigations to ensure consistency and quality in the delivery of surveying services.

The main outcomes from the new Surveying and Spatial Information Regulation 2012 (NSW Legislation, 2012d) are:

- Facilitate the implementation, maintenance and management of cadastral survey standards.
- Maintain the positional integrity of the cadastre to assure public confidence in the land titles system in NSW.
- Introduce additional forms and styles of survey marks to ensure uniform outcomes for the marking of surveys to facilitate electronic lodgement and examination of survey plans.
- Cater for evolving technologies, such as Global Navigation Satellite System (GNSS) and Continuously Operating Reference Stations (CORS).
- Enhance the standards of accuracy to accord to the higher performance of using new technologies.
- Encourage standardised forms and styles for all survey information to facilitate electronic lodgement and examination of surveys.
- Encourage integration of spatial information with street addressing for the benefit of emergency services and for the community generally.

## **2 GENERAL PROCESS**

During 2010 and 2011, many workshops were conducted with regional surveyor groups to determine the issues and principles within the Surveying and Spatial Information Regulation that needed reform. From these workshops, a detailed working brief was forwarded to the Parliamentary Counsels Office with a request to draft a new consultation draft Regulation. In addition to the draft Regulation, a Regulatory Impact Statement (RIS) is also prepared (LPI, 2012). The objective of the RIS is to outline who is making the new Regulation, why it is being made and to consider all options for the proposed changes to ensure the best outcome is to be achieved. The RIS weighs up the costs and benefits of the proposed Regulation and also considers alternative options for achieving the required options, including remaking the Regulation, introducing a Code of Practice or allowing the Regulation to lapse. In this case, making a new Regulation was considered the best option.

The RIS, together with the consultation draft Regulation, was advertised in the media and to all relevant surveying and titling industry groups (such as the Institution of Surveyors NSW, Law Society of NSW, government agencies, etc.) and to all surveyors. The intent of the advertising is to ensure that all surveyors and participants in the surveying and spatial information industry are aware of the draft changes and to invite submissions on the draft Regulation. Both documents were available for public and industry consultation during July and August 2012. Many submissions were received resulting in amendments being made prior to the final Regulation being approved by the Minister.

### 3 SUMMARY OF CHANGES AND ANNTICIPATED IMPACT

A summary of the changes from the Surveying and Spatial Information Regulation 2006 to the Surveying and Spatial Information Regulation 2012 is outlined in Table 1. Proposals that were not approved or were deleted before the final remake of the Regulation are also stated. The sequence or numbering of the changes is based upon the clause numbering in the draft Regulation.

Table 1: Summary of changes from the 2006 Regulation to the 2012 Regulation.

2006 Clause Number and Title	2012 Regulation	Reason for Change
<p><b>5 Definitions</b></p> <p>The adjoining definitions were added:</p>	<p><i>Bench Mark</i> – defined to be a survey mark referred to in Sch1, which prescribes the forms and styles of bench marks that can be used.</p> <p><i>Compiled plan</i> – defined to be a plan prepared on the basis of information recorded on plans held on public record, not on the basis of a survey of the land...</p> <p><i>SCIMS</i> – defined to be the information management system known as the “Survey Control Information Management System”.</p> <p><i>Surveyor-General’s directions</i> – defined to be the directions of the Surveyor General published on the LPI website.</p> <p><i>Road</i> – amended to include “other means of <b>public</b> access...”</p> <p><i>Established survey mark</i> - reference to register of public surveys replaced with reference to SCIMS.</p> <p><i>Survey Drafter</i> was deleted.</p>	<p><i>Bench Marks</i> – To ensure a standard form and style for all bench marks and to enable automatic assessment of bench mark via electronic lodgement.</p> <p><i>Compiled plan</i> – The Regulation makes reference to “compiled plans” in Clauses 26 and 60 as well as in Form1 in Sch6 (Survey certificate), necessitating a definition.</p> <p><i>SCIMS</i> – The Regulation makes reference to information relating to survey marks being recorded in SCIMS, rather than the register of public surveys.</p> <p><i>Surveyor-General’s directions</i> – defined to be the directions of the Surveyor General published on the LPI website.</p> <p><i>Road</i> – The amendment reduces the current requirements for marking roads by limiting the other forms of access that fall within the definition of a road.</p> <p><i>Established survey mark</i> – as records relating to survey marks are held by the Surveyor General in SCIMS, the amendment provides a more accurate definition.</p> <p><i>Survey Drafter</i> – The Board has not determined the relevant experience necessary to qualify as a Survey Drafter, hence no current requirement for a definition.</p>
<p><b>6 General principles of survey</b></p>	<p>An additional principle has been added as cl 6(d) requiring that when carrying out a survey the surveyor must ensure the MGA co-ordinates and AHD values derived for the survey are correct.</p> <p>Old cl 6(f) now cl 6(g) – Where required, a surveyor must prepare <b>and certify</b> a survey plan.</p>	<p>Historically, surveys were primarily concerned with calculating the dimensions of a parcel of land. Today, the emphasis is on positioning/location.</p> <p>It is a current requirement for all survey plans prepared by a surveyor to include a Survey Certificate. This requirement is to be included as part of the general survey principles.</p>

2006 Clause Number and Title	2012 Regulation	Reason for Change
<b>10 Surveys for identification or re-marking</b>	<p>New cl 10(3) – providing that a survey made for the remarking of a parcel may not be used for the purpose of any disposition of land or any interest in land.</p> <p>Cl 10(4) – Plans of identification now also to comply with clauses 23, 24 and 25.</p>	<p>This requirement was previously included in the regulation as a Note. It is now included as a specific clause.</p> <p>Clauses 23, 24 and 15 require a surveyor to check angular work and relate to accuracy of angular and length measurements. These clauses should also apply to surveys for identification or remarking.</p>
<b>12 Datum line</b>	<p>New cl 12(2)(c) added to require that where a rural survey is not within 1000 metres of 2 established survey marks, the bearing used for orientation may be adopted from 2 survey marks that have a horizontal position equal to or better than Class D.</p> <p>New cl 12(3) – added to require that the survey marks used to define the datum line must have an approved mark status of Null, Not Found or Found intact.</p>	<p>The clause has been amended in recognition that marks classified as Class D should be suitable to define the datum line for a rural survey. It also accommodates GNSS positioning techniques better.</p> <p>Only use marks recorded in SCIMS that are assumed to be stable and reliable to define the datum of the survey. Do not use marks that are reported to have been disturbed, damaged, subsided, or uncertain.</p>
<b>13 Bench marks</b>	<p>New cl 13(6) added requiring the position of bench marks to be determined by a survey technique equal to or better than that derived from using hand-held GNSS.</p>	<p>The bench marks used to establish height levels must be able to be easily located.</p>
<b>18 Surveys for affecting interests</b>	<p>Subclauses have been rearranged and renumbered.</p> <p>The draft Regulation proposed a new cl 18(5) added requiring that where a survey is carried out only for the purpose of creating an affecting interest, the area of the site of the affecting interest must be shown for each lot, or group of lots, held in separate ownership (except where the affecting interest comprises a physical feature or structure only (such as a track in use or party wall)). This proposal was deleted as a result of the industry consultation.</p>	<p>Subclauses have been rearranged for better clarity.</p> <p>The original proposal required the area of an affecting interest to be shown on the survey plan. That would have enabled the landowner and future purchasers to appreciate the extent of the affectation and will assist in the task of valuing the affecting interest. The area of easements is not required as a part of the 2012 Regulation.</p>
<b>19 Re-survey of property boundaries</b>	<p>New provision proposed as cl 19(2) (b) requiring a plan of resurvey to disclose the position of any existing road formation and fencing. This proposal was deleted as a result of the industry consultation.</p>	<p>The position fencing is an important consideration in re-establishing boundaries. There is no requirement to show the location road formation.</p>
<b>24 Accuracy of angular measurements</b>	<p>Cl 24(2) has been amended to require that the angular misclose must not exceed 10 seconds plus <math>10\sqrt{n}</math> seconds or 2 minutes (whichever is the lesser).</p>	<p>The accuracy has been amended to reflect the accuracy that can be obtained from modern instrumentation.</p>
<b>25 Accuracy of length measurements</b>	<p>Cl 25(2) has been amended to require all lengths to be measured to an accuracy of 10 mm + 50 parts per million or better at a confidence interval of 95%.</p>	<p>The amendment will ensure a higher level of accuracy is obtained to better meet community expectations for accurate boundary definition given increasing pressures on land use. It reflects the accuracy obtainable from modern instrumentation.</p>

2006 Clause Number and Title	2012 Regulation	Reason for Change
<p><b>26 Checking accuracy of measurements</b></p>	<p>Cl 26(2) amended to require calculation of the internal closure of any survey, and of each parcel of land surveyed.</p> <p>New cl 26(3) added to require that where complete dimension of a compiled or partially compiled parcel are shown in a survey plan the surveyor must calculate the closure of the parcel. A table was added setting out the allowable tolerance of the misclose vector. Dependant on the age of the survey on which the compiled parcels are based and on the nature of the terrain.</p> <p>New cl 26(4) provides that if the misclose vector calculated as specified above exceeds the relevant lengths provided for in the table, the surveyor must resolve the inaccuracy by surveying additional boundaries or explain the discrepancy in a comprehensive report.</p>	<p>Requiring the internal closure of all survey work to be calculated allows an additional check to ensure the accuracy of the measurements.</p> <p>Where dimensions are available, checking the accuracy will give more integrity to the residue. In the electronic environment parcels without dimensions will be unable to be validated. As this requirement only applies where complete dimensions of are available additional cost will be minimised.</p> <p>This requirement will identify parcels that require further survey investigation. This investigation can be carried out at the time of the survey or when otherwise more appropriate.</p>
<p><b>28-30 Boundary Marks</b></p>	<p><b>28 Boundary Marks</b>                      Provisions relating to boundary marks removed from existing clauses 28-30 &amp; 36 and amalgamated in new cl 28.</p> <p>(1) Surveyor must mark with boundary marks:</p> <ul style="list-style-type: none"> <li>• boundaries between parcels;</li> <li>• each corners</li> </ul> <p>(2) Boundary marks must be discernible.</p> <p>(3) Reference mark to be used where boundary mark on corner not practicable.</p> <p>(4) New provision added requiring that where a boundary is a bank or MHWB liable to erosion the boundary mark must be placed a safe distance from the MHWB or bank and the distance to the boundary must be noted.</p> <p>(5) Makes provision for the marking of an unfenced boundary in a rural survey.</p> <p>(6) No further marking of a corner is required on a rural survey where a fence post is on a corner at which a reference mark has been placed.</p> <p>(7) Size of marks placed in ornamental structures to be reduced to minimise damage.</p>	<p>Clauses amalgamated for clarity and consistency. Previously cl 29(1), relating to rural surveys, however, provision should also apply to urban surveys.</p> <p>Previously cl 30(1).</p> <p>Previously cl 36(1).</p> <p>Previously cl 30(2).</p> <p>Boundary marks placed on a bank or MHWB boundary are likely to be lost through erosion etc.</p> <p>Previously cl 29(2).</p> <p>Previously cl 30(3).</p> <p>Previously cl 36(2).</p>
<p><b>28 Marking of urban survey</b></p>	<p><b>29 Marking of urban surveys</b>                      Cl 29(1) amended to require certain reference marks to be placed in respect of an urban survey that abuts a road, other than a road used to provide a means of pedestrian access only.</p>	<p>Road is defined in cl 5 to include pathways. The amendment in cl 29(1) provides an exception to the requirement to mark roads in respect of roads used only for pedestrian access.</p>

2006 Clause Number and Title	2012 Regulation	Reason for Change
<b>29 Marking of rural surveys survey</b>	Renumbered as; <b>30 Marking of rural surveys</b> CI 30(4) amended to ensure requirement for additional marking applies to boundaries exceeding 2400 m, whether or not the boundary includes one or more bends.  CI 30(6) added to require additional reference marks: <ul style="list-style-type: none"> <li>• where land abuts a road, at the extremity of the land surveyed;</li> <li>• at each road intersection;</li> <li>• where land has a stream frontage greater than 500 metres, near each stream bank and side boundary intersection.</li> </ul> CI 30(c) added to require the survey plan to show: <ul style="list-style-type: none"> <li>• the width of roads that abut the land surveyed;</li> <li>• connections across abutting roads, where survey marks are available.</li> </ul>	Previously 29(5) with amendment to clarify intention of requirement.  The requirements for additional marks to be placed for large parcels of land will assist landowners to better identify their boundaries on the ground.  Added to ensure complete information is provided on the survey plan. The information will help to ensure adjoining plans better relate to each other.
<b>30 Corners to be marked with Boundary Marks</b>	Now clause 28.	
<b>31 Roads to be marked with reference marks</b>	CI 31(2)(a)(i) where a road intersection is cut off a reference mark is to be placed at either end of the triangle, or at the intersection.  CI 31(2)(a)(i) where a road intersection is rounded off a reference mark is to be placed at either end of the tangent point, or at the intersection.	Corrects an anomaly in the previous Regulation to re-instate usual practice.
<b>35 Surveyor to note nature and position of survey marks</b>	CI 35(1)(b) amended to require field notes and survey plan to also note MGA co-ordinates of bench marks. The survey method used to determine to co-ordinates is also to be noted.  CI 35(1)(e) added to require that where the purpose of a survey is to limit height and depth, the AHD values of permanent marks or bench marks are to be stated, along with an estimate of their accuracy.  CI 35(6) added to require that the position of each benchmark is to be determined by a survey technique equal to or better than that derived by hand-held GNSS.	No current requirements for surveyor to note MGA co-ordinates for bench marks. Knowing the method used to calculate coordinates will help a user assess their likely accuracy.  Clause 35 of the former regulation did not previously require AHD values are to be shown.  Enables bench marks to be located by a cost-effective means.
<b>36 Marking of survey boundaries</b>	Clause deleted. Provision amalgamated within clause 28.	Clauses amalgamated for clarity and consistency.
<b>Clauses 37-41</b>	Clauses renumbered 36-40 without further amendment.	

2006 Clause Number and Title	2012 Regulation	Reason for Change
<b>42 Surveys redefining or creating multiple parcels, roads or affecting interests.</b>	Renumbered as: <b>41 Surveys redefining or creating multiple parcels (etc.)</b> Cl 41 (3) amended to apply only where the survey redefines a formed road, or creates a road.  Cl 41(4) amended to apply only to affecting interest exceeding 200 m.  New cl 41(5) added requiring a survey creating an affecting less than 200 m to connect to two permanent survey marks, if permanent survey marks are available within 300 m.	Current requirement to place survey marks at frontage of unformed roads can be unnecessary.  Previous requirement too onerous in respect of small affecting interests.  By requiring smaller affecting interests to be connected if permanent survey marks are available encourages survey coordination without the cost of mark placement for a small survey.
<b>43 Connection to permanent survey marks.</b>	Renumbered as: <b>42 Connection to permanent survey marks</b> Cl 42(1) amendment to require that the permanent survey marks are to be connected to separate corners by direct lines.  Cl 42(3) amended to delete the words "Measurement between".	The benefits of relating the survey to more than one survey mark can be lost where the connection is by a series of circuitous lines rather than by direct line.  Amended to clarify that the connection between a permanent survey mark and the land surveyed is to be checked.
<b>44 New permanent survey marks</b>	Renumbered as: <b>43 New permanent survey marks</b> New cl 43(1)(b) added requiring that permanent survey marks must be placed in a position that will ensure that it is unlikely to be disturbed.  Cl 43(2) amended to apply the requirement relating to AHD values to urban surveys only.	Aligns with the requirement for reference marks and standard practices. Ensures ongoing integrity of the cadastre.  The availability of permanent survey marks with AHD values assists surveyors to propagate heights in urban areas.
<b>45 Definitions</b>	Renumbered as: <b>44 Definitions</b>	No amendment made.
<b>46 Surveys where boundary includes tidal or non-tidal waters or other natural features</b>	Renumbered as: <b>47 Surveys where boundary includes tidal or non-tidal waters or other natural features</b>	No material amendments made.

2006 Clause Number and Title	2012 Regulation	Reason for Change
<p><b>47 First survey of boundary adjoining Crown reserve or Crown road</b></p>	<p>Renumbered as: <b>45 First survey of boundary of land adjoining Crown reserve or Crown Road</b></p> <p>Two additional requirements added to Cl 45(2):</p> <ul style="list-style-type: none"> <li>• The position of any existing road formation or fencing must be shown on the survey plan,</li> <li>• The boundary need not be marked but a reference must be placed at the terminals and each interval of 1000 m.</li> </ul> <p>New provision added as: <b>46 First survey of mean-high water mark boundary or bank</b></p> <p>First survey of a MHWB boundary or bank must be defined with sufficient accuracy to enable it to be re-established despite potential for natural changes.</p> <p>Approval to be obtained from Minister administering the Crown Lands Act to first survey of mean high water mark boundary.</p>	<p>Assist with identifying potential boundary irregularities.</p> <p>Reinstates a provision inadvertently omitted from 2001 Regulation.</p> <p>The first definition of a water boundary must be surveyed and not shown merely as a natural feature.</p> <p>In view of the modified doctrine of accretion and erosion (s 55N <i>Coastal Protection Act</i>) need confirmation of the definition of the first water boundary.</p>
<p><b>48 Changes in boundaries formed by tidal waters</b></p>	<p>Cl 48(1) - (3) amended to require that where s 55N of the <i>Coastal Protection Act 1979</i> applies to a MHWB boundary to modify the doctrine of accretion and erosion, the position of the boundary is to be shown as it was before the change.</p>	<p>Amended for clarity and to ensure that s 55N is properly taken into account on the redefinition of a water boundary.</p>
<p><b>60 Survey plan to indicate name of locality, street address and type of survey</b></p>	<p>Cl 60(a) amended to require that either the suburb or locality assigned to the area by the GNB must be shown.</p> <p>Cl 60(c) added to require that where available, the street addresses must be shown on the survey plan in the format required by the Surveyor-General's directions.</p>	<p>Community benefit in tying the street address with the new lot fabric.</p> <p>Enables a layperson to more easily identify new parcels of land.</p> <p>A schedule is to be used on the administration sheet (Plan Form 6A) that shows the primary street address of all lots shown on the survey plan.</p>
<p><b>61 Method of recording datum line</b></p>	<p>Cl 61(3) amended to delete reference to register of surveys and replace with reference to SCIMS.</p>	<p>Details for survey marks are contained within SCIMS, being the database used for recording co-ordinates.</p>
<p><b>62 Method of recording bench marks</b></p>	<p>Cl 62(b) added to require the survey plan to indicate the level of accuracy of each bench mark.</p> <p>Cl 62(d) amended to require the level of accuracy for new permanent marks (used as bench marks) to be determined by the surveyor.</p>	<p>Having this information on the survey plan enables future users to assess the reliability of the survey.</p> <p>Corrects an anomaly in the current Regulation.</p>



2006 Clause Number and Title	2012 Regulation	Reason for Change
<b>64 Method of showing boundaries generally</b>	<p>Cl 64(1)(a) added to require the survey plan to show sufficient information to connect all survey marks (other than bench marks) shown on the plan by bearing and distance.</p> <p>Cl 64(1)(b) – it was proposed to amend the clause by adding the words “or co-ordinates” among the list of methods used to define boundaries. This proposal was deleted after the industry consultation.</p> <p>Now cl 64(1)(e) amended to require the location, as well as the description, of substantial structures within one metre of a boundary.</p> <p>Cl 64(1)(f) added to require that where there are no substantial structures within one metre of the boundary an appropriate statement is to be included to confirm this.</p> <p>Cl 64(1)(g) added to require complete dimensions of each parcel of land surveyed.</p> <p>Cl 64(1)(h) added to require complete dimensions of each compiled or partially compiled parcel, where available.</p>	<p>Enables survey marks to be located, for the continued enhancement of the cadastre. Enables plans to be examined electronically.</p> <p>Not amended to reflect new technologies used to define boundaries. Co-ordinates are not be used to define boundaries.</p> <p>Minor amendment.</p> <p>Added for completeness and to prevent unnecessary requisitions being sent to the surveyor during plan examination.</p> <p>To ensure that the geometry of the parcel is shown on the current plan for the land. Enables electronic examination and evaluation of the plan.</p>
<b>65 Method of showing natural feature boundaries</b>	<p>Cl 65(b) amended to require natural feature boundary to be indicated by an irregular line generally following the position of the boundary.</p> <p>Cl 65(c) amended to require boundary to also be indicated by a series of straight lines by bearing and distances that accurately describe and locate each change in direction.</p> <p>Cl 65(d) added to require the connection between terminals of the natural feature in cases where more than 10 straight lines have been used to define the boundary.</p>	<p>To clarify the description of the boundary for the layperson.</p> <p>To clarify the method of providing the mathematics of the boundary so that it can be re-established despite changes to the natural feature.</p> <p>Added to enable a mathematical check and for ease of use of the plan.</p>
<b>69 Surveyor to report on doubts discrepancies and differences</b>	<p>Cl 69(2) added to require that discrepancies in excess of 40 mm + 200 ppm must be disclosed.</p>	<p>To ensure consistency, a tolerance triggering the need for a survey report has been specified.</p>
<b>70 Surveyor to furnish survey certificate</b>	<p>Cl 70(1) amended to require that a plan prepared by a surveyor must be endorsed with, or accompanied by, a survey certificate, where it is</p> <ul style="list-style-type: none"> <li>• a survey plan;</li> <li>• a compiled plan;</li> <li>• a plan partly surveyed and partly compiled.</li> </ul>	<p>The amendment clarifies that a survey certificate is required for all plans prepared by a surveyor, whether or not the plan.</p>
<b>71 Standards for public surveys</b>	<p>Cl 71 updated to provide that public surveys must be carried out in accordance with Version 1.7 of the <i>Standards and Practices for Control Surveys</i> (SP1) and such other version of those Standards, as approved.</p>	<p>Updated to refer to latest Version of the <i>Standards</i>. <i>Standards</i> are currently under review. Surveyor General to approve any later version before it can be used as a standard for public surveys.</p>
<b>75 Formal Board determinations</b>	<p>Minor amendments made to the wording of the clause.</p>	<p>Minor amendment.</p>

2006 Clause Number and Title	2012 Regulation	Reason for Change
	New standards prescribed as: <b>Schedule 1 – Bench marks</b> Schedule 1 provides standards for the form and style of bench marks.	Defines the form and style of bench marks to be used for stratum surveys (i.e. surveys limited in height and/or depth usually limited to a AHD plane) to enable testing in the electronic environment.
<b>Schedule 1 – Forms</b>	Renumbered as: <b>Schedule 6 – Forms Form 1 – Survey certificate</b> – updated to allow survey certificate to be given where all or part of a plan has been compiled.	The amended certificate will reflect the manner in which the plan was prepared.

The major impacts of the changes in the Surveying and Spatial Information Regulation 2012 will probably be:

- Use of Class “D” marks to define the datum line for rural surveys.
- Use of Bench Mark Schedule for electronic lodgement and examination.
- Bench Marks and Permanent Survey Marks treated the same.
- Improved or tighter accuracy specifications.
- Uniform marking for rural and urban surveys.
- Complete dimensions for all Lots and a lesser misclose requirement for Residue Lots.
- Street addressing for all Lots.

#### 4 CONCLUDING REMARKS

The Surveying and Spatial Information Regulation 2006 ceased operation on 31 August 2012 and the Surveying and Spatial Information Regulation 2012 commenced on 1 September 2012. Any survey completed after 1 September 2012 must satisfy the requirements of the Surveying and Spatial Information Regulation 2012. This paper has outlined the changes that were introduced in the new Surveying and Spatial Information Regulation 2012 and the anticipated impact these changes will have on the surveying profession.

#### ACKNOWLEDGEMENTS

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#### REFERENCES

- BOSSI (2013) Board of Surveying and Spatial Information, <http://www.bossi.nsw.gov.au/> (accessed Jan 2013).
- LPI (2012) Regulatory Impact Statement – Surveying and Spatial Information Regulation 2012, [http://www.lpi.nsw.gov.au/about\\_lpi/announcements/2012/?a=171919](http://www.lpi.nsw.gov.au/about_lpi/announcements/2012/?a=171919) (accessed Jan 2013).
- NSW Legislation (2012a) Subordinate Legislation Act 1989, <http://www.legislation.nsw.gov.au/view/inforce/act+146+1989+cd+0+N> (accessed Jan 2013).

NSW Legislation (2012b) Surveying and Spatial Information Regulation 2006,  
<http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+530+2006+cd+0+N>  
(accessed Jan 2013).

NSW Legislation (2012c) Surveying and Spatial Information Act 2002,  
<http://www.legislation.nsw.gov.au/maintop/view/inforce/act+83+2002+cd+0+N> (accessed  
Jan 2013).

NSW Legislation (2012d) Surveying and Spatial Information Regulation 2012,  
<http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+436+2012+cd+0+N>  
(accessed Jan 2013).