



Regulatory Impact Statement

Surveying and Spatial Information Regulation 2024

A Regulation under the
Surveying and Spatial Information Act 2002



Spatial
Services

Submissions accepted until: **Monday 15th July 2024**

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1. Introduction

1.1 Title and proponents of the proposed Regulation

The *Surveying and Spatial Information Regulation 2024* ('the proposed Regulation'), a Regulation under the *Surveying and Spatial Information Act 2002* ('the Act'), has been developed by the Office of the Surveyor-General within DCS Spatial Services and the Office of the Registrar-General, both being units of the Department of Customer Service. The proposed Regulation, once commenced, will replace the *Surveying and Spatial Information Regulation 2017* ('the current Regulation'). The Minister for Customer Service and Digital Government, the Hon. Jihad Dib is the Minister responsible for the administration of the Act and has approved to remake the current Regulation.

1.2 Why is the proposed Regulation being made?

Regulations must be reviewed every 5 years to ensure they remain relevant. The current Regulation has been closely monitored since the last remake was made and extensive industry consultation has been undertaken to ensure that the proposed Regulation remains relevant and its objectives achievable. Once proclaimed, the proposed Regulation will replace the current Regulation on or before 1st September 2024 and be published on the NSW Legislation website.

1.3 Status of the proposed Regulation

The attached proposed Regulation is a draft and should be read together with this Regulatory Impact Statement. Interested parties are invited to review and provide comment and suggestions. Submissions received by the due date will be considered and may result in amendments to the proposed Regulation.

2. Legislative background

2.1 *Surveying and Spatial Information Act 2002*

The major objectives of the Act are to:

- ensure competent surveyors provide the public professional survey services; and
- ensure the maintenance and on-going development of the State control survey and State cadastre, which provide a reliable and accurate spatial referencing system underpinning surveying, spatial information and mapping systems in NSW.

To achieve these major objectives, the Act gives power to the Regulation to make provision with respect to:

- the practices to be followed in the conduct of surveys,
- the form in which survey plans are to be prepared,
- the competencies, qualifications and experience that a person must have to be eligible for registration as a surveyor, and
- the conditions to be imposed on a surveyor's registration.

In addition, the Act enables the Surveyor-General to establish permanent survey marks throughout the state. To foster effective State control survey coordination, all surveys made by or on behalf of a public authority are to be carried out to a high standard and are to be made by reference to state legislated datums.

3. Objectives of the proposed Regulation

The objectives of the proposed Regulation are to:

- Facilitate the implementation, maintenance and management of cadastral survey standards under the Act.
- Ensure the accuracy and integrity of the State cadastre and State control survey.
- Enable the public to readily identify the location and extent of all rights, restrictions and responsibilities related to land and real property.
- Enablement of digital government, digital business, the Property Development Pipeline and E-Plan automation by centralising information on plans of survey.
- Greater enablement and integration of positioning with datums (specifically GDA2020 and AHD71).
- Cater for evolving technologies by being technology neutral, allowing the surveyor to use the most appropriate technology to undertake the survey.
- Enhance the standards of survey accuracy required for greater protection of the public and facilitation of database integration.
- Prescribe uniform outcomes for the marking of surveys.
- Standardise forms and styles for all survey marks to facilitate electronic lodgment and examination of surveys.
- Ensure an appropriate density of survey control is placed and maintained.

4. Assessment of options to achieve objectives

4.1 Remake the current Regulation

The proposed Regulation offers the best solution to guarantee a rigorous land titles and tenure system based upon reliable surveys. It ensures sound surveying practices are used while enabling flexibility to adopt and adapt new technologies to achieve the same or better results.

Central to the integrity of survey information in New South Wales are the State cadastre and State control survey, networks that spatially identify the parcels within the Torrens land title system as well as numerous other spatial information systems. There is a recognised need for an accepted set of technical standards and specifications for horizontal and vertical control surveys to ensure the spatial integrity of the State cadastre and State control survey.

Adherence to a reliable set of standards for the State cadastre and State control survey provides significant savings, both at the local level and, more broadly, for the community. Each time that a cadastral survey is undertaken the surveyor must investigate the existing boundaries and relate them to adjoining boundaries, monuments and the State control survey.

All survey information required before undertaking a cadastral survey is held on public record, generally at NSW Land Registry Services. The Regulation supports the process where new survey information is added to existing information on land parcels and stored on public record available for future use. This system ensures the verification of property boundaries when original survey marks are lost or destroyed and ensures that surveyors take due regard for the property rights of adjoining owners, as evidenced in previous plans of survey.

The State control survey provides a high degree of spatial accuracy and integrity for all surveys and can be used to check results. The State control survey is a network of permanent survey marks of standard form being points of known horizontal position and/or height throughout the

state. This network is essential if information held in government and private spatial information systems is to be compatible. It provides the foundation for the integration of all spatial information. The horizontal positions and heights of marks comprising the State control survey, along with their respective metadata attributes (mark type, accuracy etc.) are stored and delivered to the industry and public by the Survey Control Information Management System (SCIMS), rigorously maintained to known standards by the Surveyor-General.

This enables surveyors to use the State control survey confidently, knowing that the information held has been captured using proven survey techniques, adjusted and classified according to the accuracy of results. Where the State control survey has been extended to a locality, the surveyor will be able to use that information and build onto the network. The provision of height control is very important for engineering works in all developments, particularly for water, sewerage and drainage design and other public infrastructure.

Avoiding duplication of surveys has a direct economic advantage. The State control survey has approximately 274,000 survey marks forming a network that covers the entire state. This network provides a foundation layer for all spatial information systems. It ensures that all measurements and dimensions are compatible and there is a spatial relationship for all boundary information. The proposed Regulation emphasises the use of the network and ensures that additional information regarding growth of the network is recorded on the public record. This is designed to eliminate the duplication of effort for placing permanent marks. Subsequent surveys using the network should be cheaper.

By using a land tenure system that is based upon survey for all parcels, high levels of consumer confidence are attained and greater efficiencies from using new technologies can be achieved.

In the absence of the proposed Regulation, it could be expected that disputes would arise from poorly or incorrectly marked boundaries, this would unjustifiably add substantial costs to the community.

Without the proposed Regulation, a surveyor and many other users of survey information may have great difficulty relying on work performed by other surveyors. This would result in the duplication of effort because poor survey standards would not enable new surveys to build upon previous surveys. Additional time would be spent both in the field measuring and marking surveys, and in the office computing and comparing that data, adding significant cost to the client.

The other significant outcome of not having a regulation is that the social benefits of public spatial information would disappear. The ability to have satellite navigation or advanced spatial solution based on spatially enabled data would not be freely available, there would be an additional cost to living for society as a whole.

A system of land parcel boundaries that are linked to the Survey control network provides the fundamental base data for many modern information systems. The Digital Twin and satellite navigation systems in cars are two common examples.

In light of the above, the proposed Regulation offers the best option. It ensures that recognised standards are maintained and enforced, which is crucial to the integrity of the Torrens title system and to maintain stakeholder and community confidence. The proposed Regulation makes certain that sound surveying practices are used while retaining sufficient flexibility to adapt to new technologies as they are introduced.

42 Code of Practice

An alternative to statutory regulation would be an industry Code of Practice administered by either the existing Board or an existing industry group, such as the Institution of Surveyors NSW. A Code of Practice would incorporate matters dealt with in the proposed Regulation. However, it would be a voluntary code with no compulsion to adopt and would therefore be difficult to enforce. Unless all surveyors agreed to adopt a voluntary Code of Practice there would be a decline in the integrity of the land tenure system and an increase in problems, litigation and loss of confidence in the Torrens title system, which is guaranteed by the state government.

The standards for the knowledge base and professionalism would still be set by a body, presumably the Board, before the granting of Certificates of Competency and registration as a surveyor. The Board would rely on the Surveyor-General's Directions, the Registrar-General's Directions and a Code of Practice to provide a guide for acceptable survey practice.

To give a Code of Practice the power of enforcement by the Board, amendments to the Act would be necessary. Some criteria for determining the accuracy of surveys would need to be set before the Board could determine a survey as "failing to comply". In effect, standards equating to those imposed by the proposed Regulation would need to be developed and maintained.

The difficulty of enforcing a voluntary code would lead to a gradual decline in standards, eventually eroding the integrity that has been built up in the State cadastre and State control survey over many years.

Adopting a Code of Practice would rely on the ability of the administering body to place the protection and benefit of the public and public interests ahead of the interests of individual surveyors, individual businesses or the relevant administering body.

Rather than providing savings and efficiencies, reliance on a Code of Practice would prove to be more costly both to the state government and the public. Survey costs would rise, as less reliance could be placed on surveys prepared

under a Code of Practice. More significantly, the public would bear substantial and unreasonable costs due to the gradual decay of the State cadastre and the State control survey that underpin the Torrens title system.

This option is not considered viable.

43 Allow the Regulation to lapse

Generally speaking, in a deregulated industry, all outcomes from survey activities would be prearranged between the surveyor and their client, based on cost and the level of service required. The success of this model relies on the consumer knowing what services to expect and demanding that the surveyor provide them. Often, consumers of survey services do not fully appreciate the various levels of services available or appreciate those services that are required to provide fully functioning property, development and spatial information industries.

In a deregulated environment, penalties for non-compliance would not exist as there would be no minimum standards for compliance. The Torrens title system of land tenure in New South Wales relies on every title being based upon an accurate plan of survey. Having confidence and security in the land tenure system is a fundamental prerequisite to economic development. If standards for cadastral survey services are not set, the future economic development of New South Wales may be impeded or jeopardised.

In a deregulated environment, surveys could be prepared for individuals without consideration of the community good. There would be no incentive to place survey marks, tie surveys into the State control survey, or uphold the integrity of the State cadastre, leading to their rapid decline. Boundary disputes would proliferate as surveys would be prepared without due regard to the interests of adjoining property owners, in turn giving rise to increased legal actions, placing the judicial system under increased load and delaying infrastructure development.

This option is not considered to be viable.

5. Description of the major changes proposed

5.1 Structure of the Regulation

The proposed Regulation is drafted and structured significantly different from the current Regulation. The proposed Regulation was drafted by Parliamentary Counsels Office (the Government's legal drafters of legislation) in accordance with their new drafting practices. This has resulted in changes to both structure and wording from the current Regulation. One obvious change is that the proposed Regulation (and all new regulations) no longer have 'clauses' but instead now have 'sections'.

Part 1 - Preliminary

5.2 Urban v Rural Surveys

The current definition of Urban surveys is complex. To work out what land is urban or not, a surveyor needs to check the zoning of the land to and determine if the site falls within one of 24 specified standard zones under the Local Environmental Planning. These zones can and do change without much widespread notification, which means a surveyor can be unaware of the change. This can result in the surveyor applying the incorrect surveying requirements for their particular job.

The proposal in the Regulation is to simplify the distinction between Urban and Rural. The aim is to rely on the plain English meaning of Urban being any metropolitan land or any land that has a higher lot density of and including rural residential land. There will be guidance contained with the Surveyor-General's Direction that explains the concept in detail.

Part 2 – Equipment testing

5.3 The Chain of Traceability for Measurement

A surveyor should know the accuracy of any instrument that is used when undertaking a survey. The Regulation clarifies the obligation of surveyors to ensure that their equipment is accurate before a survey is undertaken.

The Regulation prescribes a method of measurement to ensure all measurements are made in standard meters. The method is commonly known as the 'chain of traceability' and can be summarised as follows:

Verification – An annual test against the Australian Primary Standard or the State Primary Standard for any closed system instrument such as an Electronic Distance Measuring (EDM) and Reflective Prism system or Tapes and Steel Bands however, the latter are optional. Reflectorless EDM measurements are excluded from Verification.

Validation – An annual test using an approved method of an open system, instrument or method, against a Verified instrument or a network. This includes (but not limited to) reflectorless EDM, Global Navigation Satellite Systems (GNSS) and other future emerging measurement equipment that may developed.

Confirmation – The continual assessment of any Validated measurement technique compared to a Verified instrument, on a day-to-day basis to ensure that the system is producing the correct results.

This proposal ensures the protection of the standards of measurement and allow for the development of new processes and technology

Part 3 – Accuracy & Measurement

5.4 Tolerance

Currently, the tolerances of accuracy were spread throughout the Regulation, making it hard to read. The proposed Regulation seeks to put all tolerance requirements in one part of the Regulation, being Part 3. Whilst all tolerances have moved to Part 3, there has been no changes to the values of these tolerances in the proposed Regulation.

Part 4 - Datums

5.5 Horizontal Datum

The proposed Regulation will require that all surveys must be on the GDA2020 datum and adopt an Accurate MGA Orientation.

Further, the proposed Regulation will require that all surveys must connect to three (3) Survey Marks to define Datum.

The proposed Regulation will give the surveyor the choice to use co-ordinates from Established Permanent Survey Marks from the Survey Control Information Management System (SCIMS) or to use the co-ordinates from an Approved GNSS Method to bring Datum to a Survey Mark or a combination of the above sources.

5.6 Vertical Datum

The proposed Regulation will require a Bench Mark to be placed within 30m of the land surveyed for stratum surveys and promote the propagation of height when

Permanent Survey Marks are required to be placed in Urban areas. This is to provide for vertical control near the site and provide more vertical height control to the public at little expense to the industry.

Part 5 - Boundaries

5.7 Partial Surveys

To bring some consistency between the Regulation and the requirements of the Registrar General's Guidelines, the new boundary in a partial survey must intersect with the existing boundary. For this to occur the existing boundary must be defined and marked as part of the survey. To limit the occurrence of partial surveys on small lots it is proposed to create a minimum area of the existing title before a partial survey may be undertaken. This is to ensure that a full survey of each title is undertaken in an Urban areas

5.8 Natural Feature Boundaries

In the current Regulation, the production of a survey report is only required if a change in location has been identified for a natural feature boundary and an approval for the new position is required. This limited application does not assist others (such as clients, examiners and other surveyors) to know where the boundary was defined.

To remedy this, the proposed Regulation will require that for every survey that defines a natural feature boundary, the surveyor must prepare and lodge a survey report with the plan.

The report will describe (largely by images) what the environment looked like when the boundary was last defined. This is critical information when trying to assess has there been any change to the environment since the last survey.

Industry consultation was undertaken and 92% of Registered Surveyors agreed this would be a useful document to assist in the preparation of a survey.

5.9 Density of Permanent Survey Marks

As development in some areas has led to smaller lot sizes, the formula for the density of survey control has meant that there is now an oversupply of Permanent Survey Marks in some areas. A review of the desired density of Permanent Survey Marks has been undertaken and a new formula based on the distance along the road centre-line has been developed based on the original town grid layout.

Therefore, the proposed Regulation will require that any survey must connect to a Permanent Survey Mark for every 250m of (formed or proposed) road (based along the centre-line length) that shares a common boundary with the land surveyed. These Permanent Survey Marks may be the same Permanent Survey Marks used for Datum unless the survey requires more marks to be connected to dependent on the size of the survey.

5.10 Connections to Permanent Survey Marks

To reduce the number of distances surveyors need to remember the proposed Regulation will streamline the distances between Permanent Survey Marks:

- Urban is now 250m – same as Permanent Survey mark density requirements.
- Rural is now 1500m – same as Datum requirements.

The desired intent is that no Urban lot should be more than 250m from two Permanent Survey Marks. This is a long-term goal as more surveys are undertaken more Permanent Survey Marks will be placed in areas that need extra marks and in areas of over supply no new marks will need to be placed.

5.11 Surveys Not Requiring Strict Accuracy

Historically there is no way of knowing to what accuracy a survey was undertaken if the survey was not required to comply with the requirement of the Regulation.

The proposed Regulation addresses this by requiring the surveyor to have a written agreement with the client that outlines the project and the accuracy required as a record of the agreement to protect both parties.

This change will assist the client in any future works and protect the surveyor if any other work is carried by other parties.

Part 6 - Marking

5.12 Marking Generally

The proposed Regulation clarifies beyond doubt that it is a requirement to connect to a survey mark. In instances where a survey mark is not available to connect to, then the surveyor must place one and connect to it. The reason for this clarification is to stop over marking by the prescription of placing survey marks. Marks only need to be placed if there is no existing marks.

5.13 Urban v Rural Marking

In-line with the reconsideration of urban v rural surveys a rationalization of the marking requirement has been considered. While this doesn't change the marking requirements it does change the way they are described.

There are more similarities than differences between Urban and Rural marking. Hence marking has been treated as one section to avoid duplication. Anything that specifically applies to one situation will either be stated or it can't be applied to the other case.

5.14 Clearing and Blazing

The survey practice of clearing and blazing boundary lines can conflict with aspects of environmental and biodiversity legislation. To address this, the proposed Regulation clarifies that boundary lines do not need to be cleared and trees blazed; instead other means of boundary marking may be used.

5.15 Arc Boundaries to be Marked

There has become an increasing trend to create boundaries as arc boundaries. While short, large radius arc boundaries have been used for many years the trend of using long, small radius boundaries causes problems for the identification of the land because there are not enough marks to represent the curve.

The proposed Regulation will require arc boundaries to be marked only to arc boundaries that are more than $\frac{1}{4}$ of a circle in any single lot. Hence this means that this requirement does not apply to many common situations such as most road boundaries and most cul-de-sac heads.

5.16 Roads Marks to be Re-instated

Road marking forms the foundation of the public road network and the holistic structure of the cadastre. The majority of lots have a road frontage. As it is much easier to define the road if the key road marks are found the proposed Regulation will require surveyors to define the road first, before defining the lot.

Practically, this change means that the road reference marks must be found or re-instated (as intended by the original road survey) for the section of road that is being defined and forms the boundary of the subject land. Surveyors are not able to re-define or re-instate road reference marks outside the subject land of their survey.

If the mark is re-instated, it must be clearly identified as such.

5.17 Reference Marks - Rural

Currently, reference marks in rural areas are not to be placed within 30m of an existing reference mark. To prevent over marking, the proposed Regulation will allow two corners to be referenced from the same physical reference mark. Provided that the Reference Mark and the corner are on the same side of the road.

5.18 Reference Mark - Trees

The majority of rural corners were marked by a reference tree. As a result of time and bush fires many of these trees are being lost. The new requirement is to place a second reference mark whenever a reference tree is found. Preferably not another reference tree but a more durable reference mark that is easier to use and less likely to be destroyed.

5.19 Easement Marking Clarified

The current Regulation is unclear as to when the requirements of marking easements apply. While the intention is generally understood by the industry the wording has been made clearer.

5.20 Variety of Permanent Survey Marks

There are known issues with the stability of Permanent Survey Marks that are placed in the kerb and gutter; and with the removal of these marks due to kerb and gutter damage.

The proposed Regulation seeks to address this issue by allowing for a variety of Permanent Survey Marks to be placed to ensure that all marks are not lost to kerb and gutter replacement and that there are some marks that are of a more stable construction style.

This requirement will apply to large developments which account for about 5%-10% of surveys. This is to provide a long-term benefit to the stability of the cadastre.

Part 7 - Field Notes

5.21 Confirmation

To support the chain of traceability (see 5.3 above), the proposed Regulation will require validated instruments or methods to be confirmed throughout the day are recorded in the field notes. The Regulation prescribes the recording of the confirmation in the field notes.

5.22 Dates in Field Notes

The proposed Regulation removes any doubt that all dates in field notes and electronic records must be the date that the work was undertaken and recorded.

Part 8 - Plans

523 Acquisition Plans

To make it easier for readers and examiners of survey plans, the proposed Regulation will require that the first page of the plan must show the title descriptions for all lots affected by the survey regardless which page of the plan that lot appears.

524 Verification / Validation Schedule

The existing verification schedule is being removed and replaced by a smaller list of instruments used on the survey that is intended to be placed on the Administration Sheet.

This will allow more room for drafting on the plan face.

525 Age of Occupation

The intention of this existing requirement was intended to apply to fencing only. This has been clarified in the proposed Regulation.

526 Connections Across Roads

If the survey connects across the road the plan must show at least 2 connections to allow a closed loop to be shown to guarantee mathematical integrity.

The reason for the change is to make the plan easier to use when there are survey marks on both sides of the road. This also will assist with compliance of the Div 1 s. 12(1)(b) Conveyance (General) Regulation 2018.

527 Survey Certificates

The proposed Regulation introduces a new certificate to allow consents to be gained while the plan is being finalised. This will allow confidence that the definition is complete and there will be no changes to the plan other than the placing of survey marks and the adding of survey notations.

The proposed Regulation also introduces another certificate to require all Land Surveys which are not to be lodged with the Registrar General to be signed with a simplified certificate that states the details of the Registered Surveyor. Further, the Regulation

will require that all Land Survey reports must be signed by the registered surveyor, in the approved form. Hence any plan or report that shows land boundaries for any reason must be signed by a Registered Surveyor.

Part 9 – Reporting

528 Natural Feature Boundaries

A significant new proposal in the Regulation is that all surveys that define a natural feature will require a survey report to be lodged with the plan. This report will assist examiners and surveyors in the future to know what feature was located at the time of survey.

Surveys that were approved for mean high water mark (MHWM) are proposed to be limited to 20 years. In other words, any survey of a MHWM with an approval older than 20 years will require a new approval for the whole boundary surveyed, even if the boundary is substantially the same.

This is to ensure that the MHWM boundary definition is independently assessed on a periodic basis.

Currently it is possible to accept a 150 year old plan without question if the plan represents the physical situation. The only way an examiner can know this is if a report is lodged. The report is to clearly show by images what natural feature was adopted as the boundary hence making beneficial for future surveyors to see if there has been any change.

529 Locality Sketch Plans

The proposed Regulation clarifies that a Locality Sketch Plans must be lodged with the Surveyor-General (SCIMS Portal) within two months of placing the mark or before the plan is lodged, whichever is earlier.

Part 10 – Registration of Surveyors

The requirements for the registration as a Registered Surveyor have not changed. Some sections have been added to the proposed Regulation for clarity and completeness.

Part 11 - BOSSI

The Association of Consulting Surveyors NSW Inc has been added as an prescribe association. Otherwise the functions and the constitution of the Board remain unchanged.

Part 12 - Miscellaneous

Previously, exemptions by the Surveyor General to depart from the requirements of the Regulations were

done under clause 91 of the current Regulation. Recently, and based on advice from Parliamentary Counsel, the Regulation was amended which removed the exemption provisions from the Regulation and moved it into the parent Act – now being section 33A of the *Surveying and Spatial Information Act 2002*. Whilst the exemption powers have been moved, there is no change to the process of requesting an exemption from the Surveyor-General.

Registered Surveyors signature. This has been provided for to ensure and land survey or associated report has been signed by the Registered Surveyor.

5.35 Dictionary

The Definitions section is now known as the Dictionary and is found at the end of the document. However, there are a few key definitions that are still found in the body of the Regulation.

Schedules

5.30 Bench Marks

Duplicate mark types have been consolidated.
Approved marks have been removed.

5.31 Boundary Marks

Duplicate mark types have been consolidated.
Approved marks have been removed.

5.32 Reference Marks

Duplicate mark types have been consolidated.
Approved marks have been removed.
Alignment Marks have been added.

5.33 Permanent Survey Marks

The Type 7 Feno Marks are proposed to be removed. These marks have proven to be less stable than expected and are not placed very often as Permanent Survey Marks.

5.34 Certificates

The Survey Certificates has been amended so that the surveyor certifies what they have done, not what they have not done.

The proposed new Consent Certificate provides the ability for surveyors to gain consents before the final marking has occurred. This has been introduced to facilitate a streamlined registration process to allow approvals to be gained concurrently if required.

The Surveyors Certificate has been included for all reports, diagrams or plans (other than those requiring the Survey Certificate, for example a detail survey plan) and other documents that require a

6. Impact assessment of the proposed Regulation

This section of the Regulatory Impact Statement (RIS);

- Discusses the provisions of the proposed Regulation;
- Weighs up the costs and benefits of the proposed changes to the current Regulation on the surveying industry, landowners, government and the general community.

The proposed Regulation is broken up into Parts and Schedules. Each of the Parts and Schedules will be analysed separately below.

6.1 Structure of the Regulation

Changing the structure of the Regulation creates a very small short-term cost. Users of the Regulation must learn where the appropriate sections are in the new Regulation. However, this is offset by a new logical structure which is clearer and groups like function together. All the requirements for drawing a plan are grouped in one Part and all the requirements for marking are grouped in another.

Part 1 - Preliminary

6.2 Urban v Rural Surveys

The current definition of Urban surveys is complex and requires cross-referencing to external document which takes time and resources.

Using the plain English meaning of Urban means that the surveyor will simplify the process in many cases. For those situations that it is unclear, guidance in the Surveyor-General's Direction to provide clarity.

Part 2 – Equipment and Methods

6.3 The Chain of Traceability for Measurement

The Regulation standardises the terminology and provides a clear link between Primary Measurement Standard and the measurements taken in the field. This will also allow the industry to use new technology as it is developed, tested and proven, while protecting the standards of measurement.

The Regulation does introduce the new process of confirmation; however, these confirmation checks are intended to be simple, practical and low cost. Whilst a surveyor checking their measurement is a current requirement this additional requirement means a surveyor must use a different instrument or known points for some checks.

Part 3 - Accuracy

6.4 Tolerance

There have been no changes to the values of the tolerances used.

Part 4 - Datum

6.5 Horizontal Datum

The current datum requirements are considered complex. This revision simplifies the requirements by prescribing one distance for both Urban and Rural.

6.6 Vertical Datum

The basic requirements of adding a Bench Mark within 30m of the land surveyed is common practice. This provides consistency and makes the information publicly available.

Part 5 - Boundaries

6.7 Partial Surveys

The change in the Regulation regarding partial surveys is to align with the current requirements in the Registrar-General's Guidelines and thus provide clarity.

The introduction of a size limit for the parent parcel is to ensure that the integrity of the cadastre is maintained and small surveys are undertaken as full surveys.

6.8 Natural Feature Boundaries

Every survey that defines a Natural Feature boundary must lodge a survey report with the plan.

There is a cost in the production of the report however, this is offset by having more information to make better decisions while undertaking the survey in the future. Meaning better decisions and more reliable outcomes.

Clarifying when survey reports and supplementary evidence may be used as the primary method of defining a lost natural feature boundary reinforces the integrity of the Torrens Title system.

In a recent survey conducted by Spatial Services, 92% of Registered Surveyors agreed this would be a useful document to assist in the preparation of a survey.

6.9 Density of Permanent Survey Marks

The proposed Regulation reduces the number of Permanent Survey Marks that are required to be placed in comparison to the current Regulation.

6.10 Connections to Permanent Survey Marks

There are slight changes to the allowable distance of connections to Permanent Survey Marks. Urban was 300m now 250m, rural was 1000m now 1500m.

6.11 Surveys Not Requiring Strict Accuracy

It is proposed to require a surveyor to have a written agreement with the client that outlines the project and the accuracy required as a record of the agreement to protect both parties.

Part 6 - Marking

6.12 Marking Generally

There is a fundamental concept that is being formalized in this revision of the regulation, specifically with Permanent Survey Marks. Survey marks only need to be placed if there is not an existing mark adequate of undertaking the requirement required.

6.13 Urban v Rural Marking

In-line with the reconsideration of urban v rural surveys a rationalization of the marking requirement has been considered. While this doesn't change the marking requirements it does change the way they are described.

6.14 Clearing and Blazing

There has been a conflict within legislation that required surveyors to clear and blaze boundary lines however, this was not permitted by other environmental and biodiversity legislation. The change in the Regulation removes this conflict.

6.15 Arc Boundaries to be Marked

The new requirement only applies to arc boundaries that are more than $\frac{1}{4}$ of a circle in any single lot. Hence, this requirement does not apply to many common situations such as most road boundaries and most cul-de-sac heads.

While there may be a small cost to insert additional pegs in a few cases, this is offset by the benefit to the public in understanding where the boundary is on the ground.

6.16 Roads Marks to be Re-instated

This change in policy requires the road reference marks to be re-instated (as intended by the original road survey) for the section of road that is being defined and forms the boundary of the subject land.

There is a small cost replacing the mark if the road marking has been destroyed however, the extent of the survey is unchanged. The benefit is more consistent outcomes and easier definition where road marks are found in future surveys.

6.17 Reference Marks

There are two current provisions that are being combined and applied to rural marking. This will mean that any reference mark within 30m of another reference that is on the same side of the road as the point being referenced, does not need an additional reference mark to be placed. Any urban reference mark required to be placed within 10m of another reference mark does not need an additional reference mark.

6.18 Reference Mark - Trees

The new requirement is to place a second reference mark whenever a reference tree is found. There may be a small cost, but the outcome is that this preserves the integrity of the cadastre.

6.19 Easement Marking Clarified

The intention remains unchanged while the wording has been clarified.

6.20 Variety of Permanent Survey Marks

This requirement is intended to apply to large developments which account for about 5%-10% of surveys.

There is an initial additional cost in placing extra quantity of Permanent Survey Marks, however there is a long term benefit, being less marks need to be replaced. There is also a stable and reliable network nearby, reducing the survey costs in replacing the survey marks when they are destroyed or become unstable.

Part 7 - Field Notes

6.21 Confirmation

There is a current requirement to make check measurements. This new requirement requires a confirmation measurement to be recorded in a distinct way that is easy for others to identify.

6.22 Dates in Field Notes

Clarification that all dates in field notes and electronic records must be the date that the work was undertaken and recorded.

Part 8 - Plans

6.23 Acquisition Plans

The first page of the plan must show the title descriptions for all lots affected by the survey regardless which page of the plan that lot appears.

6.24 Verification / Validation Schedule

The existing verification schedule is being removed. However, this is being replaced by a much smaller list of instruments used on the survey that is intended to be placed on the Administration Sheet.

6.25 Age of Occupation

Clarification that the intention of this existing requirement was intended to apply to fencing only. This has been clarified in the revised Regulation.

6.26 Connections Across Roads

If the survey connects across the road the plan must show at least 2 connections to allow a closed loop to be calculated. No significant change to practice.

6.27 Survey Certificates

Requirement for all Land Surveys and reports including Identification, Re-marking, Work As Executed and Detail surveys (that show land boundaries) to be signed by a Registered Surveyor with a standardized certificate.

Part 9 – Reporting

6.28 Natural Feature Boundaries

All surveys that define a natural feature require a survey report to describe the natural feature, and MHWM approvals will be limited to 20 years.

While there is a cost in the production of these reports, there is a benefit in easier definition, due to a knowing if any change has occurred. Also knowing where the previous surveyor located the boundary and why. Boundary definition of a natural feature is a time-consuming process and the more information available about if there has been any change is invaluable.

6.29 Locality Sketch Plans

Locality Sketch Plans must be lodged with the Surveyor-General (SCIMS Portal) within two months of placing the mark or before the plan is lodged, whichever is sooner.

Part 10 – Registration of Surveyors

No change to the requirement to become a Registered Surveyor.

Part 11 - BOSSI

A slight change to the makeup of the Board. This does not increase or decrease the number of members of the Board.

Part 12 - Miscellaneous

Exemption have been removed as they are covered by the Act. No change to the process.

Schedules

6.30 Schedules

There are no significant changes to the schedules and therefore these are consider cost neutral.

6.31 Definitions / Dictionary

The amendments to the definitions have been made for clarity and to reflect existing terminology (e.g. definition for spline).

The amendments do not give rise to any costs. The benefit is better understanding of the requirements.

7. Consultation

7.1 Presentations

During 2022 - 2024 presentations were made to various surveying industry groups within New South Wales to determine if practicing surveyors had issues or problems with the current Regulation. The presentations also gave an overview of new reforms proposed in this Regulation and to assess the feedback to those reforms. The presentations were made to the following groups and conferences:

- ISNSW Australia Day Seminar
- Association of Public Authority Surveyors (APAS),
- Country Surveyors Association,

7.2 Questionnaire

At the beginning of the review a questionnaire was prepared to gain feedback on the main changes planned at that time. Since then the structure of the document has been changed significantly however, that has not affected the outcomes of the document. Another questionnaire will be circulated as part of the consultation process to determine the effect of the structure changes and other changes proposed that have been identified throughout the process.

7.3 Circulation of the public consultation draft Regulation and RIS

The public consultation draft of the proposed Regulation prepared by the Parliamentary Counsel's Office along with this Regulatory Impact Statement will be circulated to industry groups and government agencies/sectors. The following organisations will be referenced for comment.

- Association of Consulting Surveyors New South Wales Incorporated. (ACS NSW)
- Australian Institute of Mine Surveyors Limited (AIMS)
- Association of Public Authority Surveyors (APAS)

- Board of Surveying and Spatial Information (BOSSI)
- Director Cadastral and Geodetic Services, Queensland
- Institution of Surveyors New South Wales Incorporated (ISNSW)
- Inter-Governmental Committee on Surveying and Mapping (ICSM)
- Mapping Sciences Institute Australia (MISA)
- Spatial Information Business Association (SIBA)
- Surveying and Mapping Industry Council (SMIC)
- Survey and Mapping Managers Forum (SMMF)
- Geospatial Council of Australia (GCA)
- Surveyor General of the ACT
- Surveyor General of the Northern Territory
- Surveyor General of South Australia
- Surveyor General of Tasmania
- Surveyor General of Victoria
- Surveyor General of Western Australia
- University of Newcastle
- University of NSW

It is anticipated that the Board of Surveying and Spatial Information will forward the public consultation draft of the proposed Regulation and this Regulatory Impact Statement to all contactable Registered Surveyors.

74 Making a submission

Interested organisations and individuals are invited to provide a submission on any matter relevant to the proposed Regulation.

Matters covered by the principal Act – the *Surveying and Spatial Information Act 2002* – are not the subject of the consultation process.

We would prefer to receive submissions by email and request that any documents provided to us are produced in an 'accessible' format.

Accessibility is about making documents more easily available to those members of the public who have some form of impairment (visual, physical, cognitive). Further information on how you can make your submission accessible is contained at [http://webaim.org/techniques/ word/](http://webaim.org/techniques/word/).

We invite you to read this paper and provide comments. Additional copies of the RIS and the proposed Regulation can be downloaded from www.spatial.nsw.gov.au

Printed copies can be requested from DCS Spatial Services by contacting this office on the below details for making a submission.

You can make submissions by:

- email to: CMU@customerservice.nsw.gov.au, or
- post submissions to the following address:

Surveying and Spatial Information
Regulation 2024
Office of the Surveyor-General
DCS Spatial Services
346 Panorama Avenue
Bathurst, NSW, 2795

**Submissions will be taken until,
Friday 5th July 2024.**