

Cadastral Integrity

Audit & Compliance Framework

Office of the Surveyor-General

V1.1

September 2023

KNet# 16365134



Government of
South Australia

Table of Contents

Document Management.....	4
Document details.....	4
Document History.....	4
1 Cadastral integrity.....	5
2 Legal framework.....	5
3 Compliance framework.....	6
3.1 Compliance strategies.....	7
3.2 Responsive and risk-based approach.....	7
3.3 Compliance activities.....	8
3.3.1 Educate.....	8
3.3.2 Plan examination & desktop investigations.....	8
3.3.3 Audit surveys.....	8
3.3.4 Complaints.....	8
3.3.5 Investigations.....	9
3.3.6 Disciplinary Action.....	9
4 Stakeholders.....	9
4.1 Surveyors Board of South Australia.....	9
4.2 Office of the Surveyor-General.....	10
4.3 Licensed surveyors.....	10
4.4 South Australian Civil and Administrative Tribunal.....	10
5 Audit program.....	10
5.1 Desktop investigations.....	10
5.2 Audit surveys.....	11
5.2.1 Audit notification and supply of field notes.....	12
5.2.2 Audit reports.....	13
5.2.3 Response to audit findings & rectification.....	13
5.2.4 Assessment of errors.....	14
5.2.5 Survey assessment.....	16
6 Surveyors Board audit sub-committee review.....	16
7 Audit priority rating and frequency of audit.....	17
8 Effectiveness of the audit & compliance framework.....	18
8.1 Monitoring and measuring.....	18
8.2 Continuous improvement.....	18
Appendix A: Desktop Investigation - Checklist.....	19
Appendix B: Surveyor's Notification of intention to conduct an audit survey.....	20
Appendix C: Audit Survey – Surveyor's Notification.....	21

Cadastral Integrity - Audit & Compliance Framework

Appendix D: Audit Survey – Owner’s Notification..... 22

Appendix E: Audit Survey Report..... 23

Appendix F: Audit Report – Cover Letter (Low & Very Low Compliance) 25

Appendix G: Audit Report – Cover Letter (High Compliance)..... 26

Appendix H: Audit Survey Preliminary Assessment (Low & Very Low Compliance)
..... 27

Appendix I: Surveyor-General’s notification of audit priority after sub-committee
review 28

Document Management

Document details

File Name: Cadastral Integrity – Audit & Compliance Framework

Document Number: KNet 16365134

Sensitivity: Official

Document Owner: Surveyor-General

Document History

Revision History

Date	Version	Description	Author(s)
14/05/2021	0.1	Initial Draft	Bradley Slape & Peter Brinkley
1/06/2021	0.2	Draft for Surveyors Board Consultation	Bradley Slape, Peter Brinkley & Michael Burdett
26/08/2021	0.3	Draft	Bradley Slape, Peter Brinkley, Michael Burdett, Surveyors Board of SA
1/09/2021	1.0	Endorsed	Bradley Slape, Peter Brinkley, Michael Burdett, Surveyors Board of SA
15/09/2023	1.1	Weblinks updated	Sam Perin

Approval History

Date	Version	Description	Endorsed by	Approved by
1/09/2021	1.0	Published	Surveyors Board of SA	Surveyor-General Michael Burdett
15/09/2023	1.1	Published	Surveyor-General Bradley Slape	Surveyor-General Bradley Slape

Uncontrolled document when printed

1 Cadastral integrity

The South Australian Government, through the Minister and Surveyor-General, is responsible for issuing, monitoring and policing cadastral survey practice standards in South Australia.

The cadastral system of South Australia underpins the reliable registration & reinstatement of land boundaries and associated property rights and ownership. The government and community entrusts licensed surveyors to maintain and protect the integrity of the cadastre, which supports economic development through confidence in the property market.

Uncertainty in land boundary location leads to an economic risk to society and the property market. Through the regulation of licensed surveyors and an audit and compliance framework the government is able to effectively manage risks associated with the cadastral system and maintain a high level of cadastral integrity.

This document sets out the processes and procedures to assist in regulatory compliance by licensed surveyors in South Australia. It sets the overarching approach to compliance and establishes the principles for how regulatory functions are undertaken and monitored.

2 Legal framework

Cadastral survey practice in South Australia is regulated by a four tiered structure:

- [Survey Act 1992](#).
- [Survey Regulations 2020](#).
- [Notices of the Surveyor-General \(No 1 - 7\)](#).
- [Cadastral Survey Guidelines](#).

Further, regulation 18 requires that a plan of cadastral survey lodged in the Lands Titles Registration Office must comply with the Registrar-General's [Plan Presentation Guidelines](#) (PPG).

Investigations of compliance with survey instructions has been available to the Surveyor-General through the State's legislation since 1929.

The [Survey Act 1992](#) (the Act) authorises the Surveyor-General to conduct investigations:

44—Investigations by Surveyor-General

- (1) The Surveyor-General may, on his or her own initiative or on complaint received from any person, conduct an investigation in order to determine—
 - (a) whether a cadastral survey or a record or plan prepared in connection with a cadastral survey and lodged in the Lands Titles Registration Office or other public registry or office is defective in any respect; or
 - (b) whether in relation to a cadastral survey there has been a breach of, or non-compliance with, this Act or survey instructions in force under this Act.
- (2) The Surveyor-General may appoint a suitable person to conduct an investigation.
- (4) For the purposes of an investigation, the Surveyor-General, or a person appointed by the Surveyor-General under this section, may—
 - (ac) require any person who has possession of records or equipment relevant to the matter under investigation to produce those records or equipment for inspection, including written records that reproduce in a readily understandable form information kept by computer, microfilm or other process;

Furthermore, the Act authorises the Surveyor-General to require surveyors to amend defects found in surveys:

45—Rectification

- (1) If, after an investigation under this Division has been conducted, the Surveyor-General is satisfied that a cadastral survey or a record or plan is defective in some respect, the Surveyor-General may, in order to rectify that defect, require the licensed surveyor responsible for the survey to do any one or more of the following:
 - (a) to carry out additional work in connection with the survey within a specified period;
 - (b) to amend any record or plan prepared in connection with the survey within a specified period;
 - (c) to prepare any further record or plan in connection with the survey within a specified period.
- (2) Before the Surveyor-General exercises a power conferred by subsection (1), the Surveyor-General—
 - (a) must allow the person concerned a reasonable opportunity to make representations orally or in writing; and
 - (b) must, if that person so requests, refer the matter to the Institution of Surveyors for advice.
- (3) A surveyor who, without reasonable excuse, refuses or fails to comply with a requirement under subsection (1) is guilty of an offence.
Penalty: Division 7 fine.
- (4) If a surveyor refuses or fails to comply with a requirement under subsection (1), the Surveyor-General may carry out such work as is necessary to rectify the defect and may recover the costs of that work as a debt owed by the surveyor.
- (5) If a surveyor of whom a requirement under subsection (1) would have been made has died, the Surveyor-General may carry out such work as is necessary to rectify the defect.

The [Survey Regulations 2020](#) authorise the Surveyor-General to require surveyors to extend surveys if believed to be defective:

25—Additional work required by Surveyor-General

- (1) If the Surveyor-General believes on reasonable grounds that the definition of boundaries as shown on a survey plan may not be accurate by reason of the survey not being carried out in accordance with these regulations, the Surveyor-General may, in order to enable the Surveyor-General to verify the definition of boundaries, require the surveyor by whom or under whose supervision the survey was carried out to undertake additional work, or to provide additional information, in relation to the survey.
- (2) The surveyor must comply with any such requirement within 14 days or such longer period as is allowed by the Surveyor-General.

3 Compliance framework

Effective management of the risks to the cadastral system are a result of a successful compliance framework. The compliance framework guides how government ensures regulatory compliance of the cadastral surveying profession. It sets out the overarching approach to compliance and establishes principles for how regulatory functions are undertaken. The framework is supported by strategy, legislation, directions, guidelines, education, audit program and disciplinary action against underperforming surveyors.

3.1 Compliance strategies

The five strategies (see figure 3.1 below) that guide how the compliance program is delivered are:

- **Guide:** ensure legislation remains contemporary and provide guidelines that are ‘fit-for-purpose’;
- **Educate:** provide advice, education and access to information that allows the profession to understand the expectations;
- **Support:** encourage compliance and support industry;
- **Monitor:** monitor compliance using a risk-based approach and use the outcomes to address issues;
- **Enforce:** use a range of tools and interventions to respond to non-compliance.

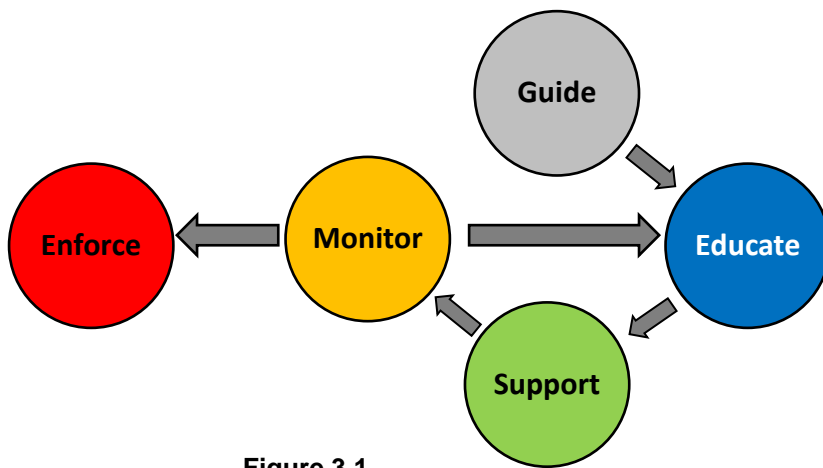


Figure 3.1

3.2 Responsive and risk-based approach

The compliance pyramid in figure 3.2 below demonstrates how a responsive and risk-based approach to regulation is undertaken by the Office of the Surveyor-General and the Surveyors Board.

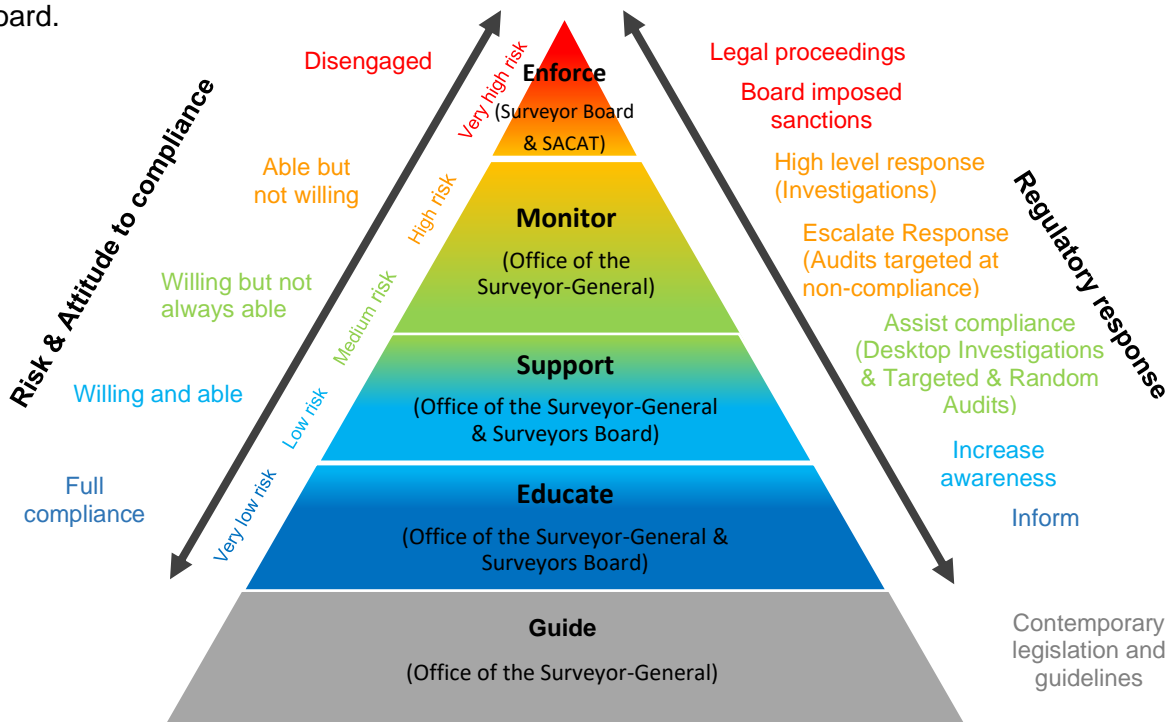


Figure 3.2

A risk-based approach is used to prioritise responses to non-compliance and identify the focus of compliance activities.

3.3 Compliance activities

3.3.1 Educate

The primary focus for achieving ongoing compliance is to educate and advise the profession to build capacity to understand their obligations and to ensure a high level of diligence in their work. The Office of the Surveyor-General seeks to encourage voluntary compliance and promote a compliance culture through education. This includes guidelines, workshops and webinars/seminars to explore particular issues and provide guidance and education to the profession. The Institution of Surveyors, South Australia, through the Surveyors Board of South Australia supports a Continuing Professional Development (CPD) program that forms a mandatory obligation for surveyors to undertake CPD to maintain registration as a Licensed Surveyor.

3.3.2 Plan examination & desktop investigations

Land Services SA (LSSA), on behalf of the Registrar-General, are responsible for the examination and registration of survey plans and property dealings and issuing of certificates of title.

While each plan lodged in the Lands Titles Registration Office undergoes a desktop examination by LSSA plan examiners to ensure that the plan complies with all the relevant statutory documents, survey redefinition and the integrity of the cadastre are the shared responsibility of the Surveyor-General & Registrar-General.

Historically, the Registrar-General and the Office of the Surveyor-General have worked together to ensure lodged certified surveys follow established boundary redefinition principles and the integrity of the cadastre is upheld. This relationship has continued with LSSA and Licensed Surveyors within the Office of the Surveyor-General supplement LSSA's plan examination by carrying out desktop investigations to provide quality assurance and monitor the boundary redefinition aspects of lodged surveys. See [section 5.1](#).

Non-compliances found in desktop investigations are used to monitor the surveyor concerned and successive non-compliances will initiate an audit survey.

3.3.3 Audit surveys

Audit surveys are a more comprehensive check of compliance with survey instructions than desktop investigations. Audit surveys are selected randomly or targeted at higher risk cadastres or the surveyor's performance history.

Audit surveys provide a mechanism for the Surveyor-General to refer ongoing non-compliances by a surveyor to the Surveyors Board.

3.3.4 Complaints

Section 35 of the Act provides for the Surveyor-General to make a complaint to the Surveyors Board for investigation.

35—Complaints

- (1) Any person may lodge with the Institution of Surveyors a complaint against—
 - (a) a surveyor or former surveyor; or
 - (b) a surveying services provider or former surveying services provider; or
 - (c) the occupier, or former occupier, of a position of authority in a trust or corporate entity that is a surveying services provider.
- (2) The Institution of Surveyors must, wherever practicable, attempt to resolve the subject matter of a complaint by conciliation.

Section 9 of the Board's Standing Operating Procedures (SOP) provides guidelines for the Board to address complaints.

3.3.5 Investigations

The Surveyors Board must investigate a complaint made by the Surveyor-General following a surveyor's ongoing non-compliance.

36—Investigations by Institution of Surveyors

- (1) The Institution of Surveyors must at the direction of the Surveyor-General, and may in any other case, investigate a complaint made against a person under this Division.

The investigation will indicate the seriousness of the non-compliance and allow the Board to determine an appropriate course of disciplinary action.

Section 9 of the Board's Standing Operating Procedures (SOP) provides guidelines for the Board to conduct investigations.

3.3.6 Disciplinary Action

Disciplinary action is seen as a last resort for high level non-compliance, or when appeals to rectify ongoing non-compliance are ignored. Actions may include the offending surveyor meeting with the Board and Board imposed sanctions or Board referral to the South Australian Civil and Administrative Tribunal (SACAT) for further action.

Section 9 of the Board's Standing Operating Procedures (SOP) provides guidelines for the Board to address disciplinary action.

4 Stakeholders

4.1 Surveyors Board of South Australia

Under the Act, the Institution of Surveyors, through the Surveyors Board of South Australia (the Board), has responsibility for general oversight of the professional practice of surveyors and to promote and maintain high standards of competence and conduct.

The Board is responsible for an active involvement in continuing professional development (CPD) of surveyors to maintain and enhancement of professional skills. The Board monitors standards of competency and ensures suitable content for CPD opportunities for practitioners in the form of seminars, workshops and conferences.

The Board is also responsible for administering and investigating complaints against surveyors who have a history of non-compliance with the regulatory framework.

4.2 Office of the Surveyor-General

The Office of the Surveyor-General undertakes an audit program to verify regulatory compliance and monitor standards of cadastral surveys lodged with LSSA. This program provides the Board with a tool for measuring the success of their objective and identifies areas of focus for industry education.

Under section 44 (2) of the Act, Licensed Surveyors, or audit surveyors, within the Office of the Surveyor-General have been appointed by the Surveyor-General to carry out desktop investigations and audit surveys.

The Principal Cadastral Surveyor is responsible for implementing the audit program and retention of any records associated with the program. In line with the South Australian Government Code of Ethics, the content of all related files is confidential and is restricted to the Office of the Surveyor-General staff and members of the Surveyors Board of South Australia.

4.3 Licensed surveyors

Section 26 of the Act provides for the requirement of licensed surveyors to engage in CPD. CPD assists in meeting the expectations of the community and enables surveyors to stay well-informed on the current statutory requirements. The Surveyors Board of South Australia, the Surveying and Spatial Sciences Institute (SSSI), Consulting Surveyors South Australia (CSSA) and the Office of the Surveyor-General provide education workshops, and webinars/seminars to assist surveyors meeting CPD requirements and to address recurring issues identified by desktop investigations and audit surveys.

4.4 South Australian Civil and Administrative Tribunal

The South Australian Civil and Administrative Tribunal (SACAT) is a state tribunal that assists in resolving complaints against surveyors who demonstrate ongoing non-compliance with survey instructions. The Surveyor-General, the Institution of Surveyors or any other person may lodge a complaint with SACAT setting out the matters that are alleged to constitute disciplinary action.

5 Audit program

The Principal Cadastral Surveyor is responsible for the administration of the audit program.

Two types of investigations operate concurrently within the program:

- desktop investigations, and
- audit surveys

5.1 Desktop investigations

Although LSSA examine every lodged survey to ensure that the plan complies with relevant statutory requirements and presentation format, a desktop investigation by the Office of the Surveyor-General may be carried out prior to plan approval to investigate the common law redefinition of the surveyed boundaries.

A desktop investigation will address:

- search,
- survey report,

- survey mark and occupation connection,
- redefinition principles, and
- easements

Site visits may be undertaken to confirm suspected oversights.

Due to the large sample size, desktop investigations assist in identifying patterns of non-compliance and boundary redefinition deficiencies. Education programs facilitated by the Office of the Surveyor-General are focussed on addressing these issues.

Desktop investigations make allowance for the occasional oversight so surveyors are not penalised for a single non-compliant survey, particularly where a high number of surveys have been previously lodged and found to be compliant. However, multiple non-compliances within a twelve month period require action to facilitate improvement with regulatory compliance and standards.

Results of desktop investigations are recorded by the audit surveyor using the checklist in [Appendix A](#).

The auditing surveyor notifies the LSSA plan examiner of any deficiencies in boundary redefinition that require rectification or additional connection. The redefinition requests are forwarded to the certifying surveyor as requisitions from the LSSA plan examiner; the checklists are not forwarded to the surveyor.

Responses and queries relating to redefinition requisitions sent from LSSA via an audit surveyor are to be directed to the responsible audit surveyor. All other requisitions are to be directed to the LSSA plan examiner in the first instance.

Very low and successive low compliant desktop investigations will be reviewed by the Surveyors Board Audit Sub-committee (see [section 6](#)) but will not be included in the surveyor's audit priority rating (see [section 7](#)). In consultation with the Audit Sub-committee, surveyors with non-compliant desktop investigations may be notified that an audit survey will be initiated within 12 months ([Appendix B](#)). Certified surveys lodged by the surveyor within the 12 month period will continue to undergo desktop investigations and any survey found to be non-compliant will be selected for audit. If a targeted audit cannot be selected within the 12 month period a survey lodged by the surveyor will be randomly selected.

Conversely, when a number of consecutive desktop investigations result in a continuous level of high compliance by the surveyor a targeted audit will be initiated to provide the surveyor with the opportunity to improve their audit priority rating. Refer to [section 7](#).

The number of consecutive high compliant desktop investigations required to initiate the targeted audit is at the discretion of the Principal Cadastral Surveyor and will depend on the complexity of the surveys checked and the volume of surveys lodged by a surveyor.

Surveyors lodging high volumes of surveys may also be targeted for audit more frequently.

5.2 Audit surveys

Audit surveys are a more comprehensive check of compliance with survey instructions than desktop investigations and check items that cannot be detected by desktop analysis. They may be selected randomly or targeted and will include field checks such as marking requirements, measurement accuracy and occupation descriptions.

Audits may review the entire survey or a specific portion and may extend the survey to locate further evidence.

Audit surveys may be selected for any of the following reasons:

- the surveyor has obtained a very low compliance on a desktop investigation,
- the surveyor has obtained multiple low compliances on desktop investigations,
- the surveyor has obtained a recent history of high compliances on desktop investigations,
- the surveyor is due for audit based on their audit priority rating (see [Table 7.1](#)), or
- apparent discrepancies or inadequacies are evident in the survey following LSSA plan examination.

Targeted audit surveys are generally based on the certifying surveyors audit history, results of desktop investigations and high risk cadastres.

Random audit surveys are chosen using a register of actively lodging surveyors placed in a random order. When the surveyor's name is reached on the list their most recently unapproved lodged survey is selected. If their most recently lodged survey has already been approved, the next surveyor on the list due for audit will be selected instead. All surveys certified or partially certified are included in the random selection except for Plans for Information Purposes. This means that Community divisions and data divisions pegged in accordance with prior certified surveys may be randomly selected.

Randomly selected audit surveys outside metropolitan Adelaide may not be audited until it is economical for the audit surveyor to visit the relevant area. These surveys will not be delayed in examination to wait for the audit; the audit may be carried out after plan approval.

The frequency of likelihood that a surveyor will undergo a targeted audit is determined by the results of their desktop investigations and last three audits where the survey assessment has been used in their audit priority rating. Refer to [Table 7.1](#).

5.2.1 Audit notification and supply of field notes

The Principal Cadastral Surveyor will notify the certifying surveyor of the audit (see [Appendix C](#)) and request a copy of their field notes (s 44(4) of the [Survey Act 1992](#)). Field notes provided must include observations and sketches. Digital observations shall be supplied as a comma separated variable (csv) coordinate file containing point number, easting, northing and comment/description; original raw format observation files may also be requested. A sketch relating the feature associated with the point number is also required to supplement the coordinate file.

It is important that field notes provided are a copy of the originals. While good quality scanning of sketches and observations is appreciated, no attempt should be made to redraw or touch up field notes for the purpose of making interpretation easier for the audit surveyor. Surveyors should retain their original field notes in accordance with regulation 15.

The property owners are advised by mail (see [Appendix D](#)):

- of the purpose of the survey
- that all surveyors licensed to perform boundary surveys are included in the program
- that audit selection does not carry any reflection on the competence of the surveyor concerned
- that the audit survey is carried out at no cost to them
- that the audit survey should not delay the approval of their survey due to it generally being given priority in processing
- of the intention (including when) to enter their land to carry out the audit survey.

5.2.2 Audit reports

Audit survey findings are reported to the certifying surveyor using the checklist in [Appendix E](#).

The report notes compliance with survey instructions, providing additional textual comment and utilising annotated plans if required.

Audit field work may:

- confirm any significant disagreements obtained with measurements shown on the plan between reference marks, and in the position of occupation & pegs
- ensure marking meets statutory requirements
- search for all marks shown “gone” on the survey
- check information shown on the plan and note significant omissions
- locate any additional evidence likely to influence the boundary redefinition.

The audit report will address evidence relevant to the boundaries redefined by the survey in accordance with common law. The audit surveyor may deepen the investigation, through extending search and connection, where the boundary evidence is limited or contradictory. The lodged redefinition will be accepted if the evidence suggests the boundary position is as certain as any other option. The audit surveyor will only recommend amendment to the boundary redefinition where the evidence supports a significant improvement.

Surveyors are not required to correct errors in previous surveys, only to extend their surveys to verify boundaries being redefined, as required by regulation 11(2)(c).

In general, audit surveyors do not look for marks recorded gone by certified surveys prior to the survey under audit. They will do so however in areas of limited or conflicting evidence where the existence of those marks could be the key to resolving the local cadastre’s position.

The audit report is sent to the surveyor by the Principal Cadastral Surveyor and the LSSA plan examiner simultaneously sends the plan and requisitions through EPL.

Audit reports may be used in an investigation of a complaint that may lead to disciplinary action and are required to contain the rigour required by a Court or SACAT.

5.2.3 Response to audit findings & rectification

Audit reports for surveys found to be low or very low complaint will have a covering letter ([Appendix F](#)) attached requesting the surveyor consider the findings of the audit for amendment to their survey and/or response. Audit reports for surveys found to be high compliant will have a covering letter confirming the survey is high compliant ([Appendix G](#)) and that the audit will not be reviewed by the Surveyors Board Audit Sub-committee (see [section 6](#)).

If agreement on proposed amendments cannot be reached after discussion with the Principal Cadastral Surveyor, the surveyor may request the matter be referred to the Institution of Surveyors South Australia (ISASA) for review. After review the ISASA will provide independent advice to the Surveyor-General as to whether the survey’s approval should be subject to the amendments recommended by audit survey.

Amended plans are simultaneously checked by the LSSA survey examiner for their presentation requisitions and by the audit surveyor to confirm audit findings are satisfactorily resolved prior to plan approval.

Cadastral Integrity - Audit & Compliance Framework

5.2.4 Assessment of errors

Following plan approval, the Principal Cadastral Surveyor assesses the errors in the survey as initially lodged and the magnitude of the shift in boundary corners as a results of rectifications.

Non-compliances are assessed using the following guidelines:

Item	Medium Compliance	Low Compliance	Very Low Compliance
Bearing datum		Incorrect (not MGA2020)	
Sufficient number of PSMs connected		Insufficient	
Positional accuracy of marks – including coordination of PSMs		Outside tolerance, < 0.1m urban, < 0.3m rural	Outside tolerance, > 0.1m urban, > 0.3m rural
Occupation accuracy	Up to two outside tolerance	More than two outside tolerance, < 0.2m urban, < 0.5m rural	More than two outside tolerance, > 0.2m urban, > 0.5m rural
PSM, survey peg: type and size	Below specification	Inadequate durability	
PSM connection	Not connected on plan	Marks shown on plan not connected in field	
New boundaries pegged		New corner not pegged Datum pegs required	New parcel extent unclear to potential owner
Protecting PSMs	Marks at some risk		
Subject land occupation	Outer boundary occupation ignored	Occupation of new boundary ignored	Significant encroachment overlooked
PSM occupation	Occupation ignored		
Boundary redefinition	Error within tolerance	At least one boundary outside tolerance, < 0.1m urban, < 0.5m rural	At least one boundary outside tolerance > 0.1m urban, > 0.5m rural
Connection to marks	Inappropriate use of NLF Relevant marks ignored	“Gone” mark exists Original peg or trenches overlooked Inadequate extent	
Connection to occupation	Up to two occupations overlooked	Inadequate extent More than two occupations overlooked	
Peg ages	Up to two incorrect/ignored	More than two incorrect/ignored	
Occupation description/age	Up to two incorrect/ignored	More than two incorrect/ignored	

Cadastral Integrity - Audit & Compliance Framework

Search prior to survey	Essential plans or data source not included in search list		
Perimeter misclosures	Outside tolerance, < 0.1m + 1/2000 (equiv for bearings)	> 0.1m + 1:2000 (equiv for bearings)	
PSM coordinate joins	Outside tolerance, < 0.1m urban, < 0.3m rural	Outside tolerance, > 0.1m urban, > 0.3m rural	
PSM location cards	Not provided or inadequate standard		
Provision of PSM coordinates	Not provided or inadequate standard		
Detailed survey report for data discrepancies	Not provided or inadequate standard		
Gone PSM report	Not provided or inadequate standard		
Natural boundary report	Not provided or inadequate standard		

Table 5.1

The size or complexity of the survey is not a primary factor in the above criteria however they are considered for:

- 'borderline' cases, or
- medium compliances are dependant on one or two occurrences of an error; greater allowance, that is more than two occurrences, will be made for larger surveys.

As well as the above tolerances and survey complexity criteria, redefinition error assessment will also consider the degree of certainty and impact on the cadastre. The low compliance for a new corner not pegged is applied if a surveyor marks a new corner with an offset mark only, despite it being practicable to place a survey peg on the corner.

This list is not exhaustive; it only includes the more common errors. Other errors of similar significance will be assessed accordingly, for example, there have been cases of occupation never measured shown on the boundary, or apparently non-existent pegs adopted. Flexibility will be applied to the above table in mitigating circumstances.

5.2.5 Survey assessment

Desktop investigations and audit surveys are assessed overall on the basis of their worst non-compliance error. Very low compliance errors are those considered serious enough that they shouldn't occur no matter how large the survey. Low compliances are serious enough that only one (except occupation errors) disqualifies the survey from being considered high compliance.

Surveys are assessed according to the following non-compliance relationship:

Non-Compliance / Survey Assessment Relationship				
Worst Non-Compliance	No Errors	Medium Compliance	Low Compliance	Very Low Compliance
Survey Assessment	High Compliance		Low Compliance	Very Low Compliance
Score	1		2	3

Table 5.2

The Principal Cadastral Surveyor will advise the certifying surveyor (see [Appendix H](#)) of the audit survey's preliminary assessment based on the criteria in [table 5.1](#) and, if a low or very low compliance survey, the date of review by the Surveyors Board Audit Sub-committee (see [section 6](#)). The surveyor will be invited to respond or provide comment to the Principal Cadastral Surveyor if they have any concerns about the preliminary assessment. All responses will be provided to the Sub-committee to assist with their review.

High compliance audits are reported to the Sub-committee but are not reviewed. The Principal Cadastral Surveyor will confirm the surveyor's audit priority rating at the time of advising the survey's assessment as high compliance ([Appendix G](#)).

6 Surveyors Board audit sub-committee review

The Surveyors Board has an Audit Sub-committee, consisting of two of its members, for liaison with the Principal Cadastral Surveyor.

The Principal Cadastral Surveyor provides a monthly report to the Audit Sub-committee detailing:

- the number of desktop investigations and audit surveys undertaken since the last report,
- a summary of finalised audit surveys (errors & preliminary assessment) since the last report,
- the audit history of the surveyors for finalised audit surveys,
- the number of surveyors in each audit priority category, and
- the names of surveyors in the high and very high audit priority category.

The Audit Sub-committee meets with the Principal Cadastral Surveyor on a monthly basis to review the report, the surveys assessed as low and very low compliance audits, the audit history of the surveyor and the findings of desktop investigations.

The Sub-committee will review all errors in the survey giving consideration to responses from the surveyor, the uncertainty in the cadastre, the surveyor's desktop investigation history and

Cadastral Integrity - Audit & Compliance Framework

types of LSSA plan requisitions and may use discretion in providing recommendations to the Principal Cadastral Surveyor for the final overall assessment of the survey.

While the Sub-committee will provide advice and recommendations to the Principal Cadastral Surveyor with regard to the final assessment of the desktop investigation or audit survey, the Principal Cadastral Surveyor is responsible for the survey's assessment.

After confirmation, or otherwise, of the preliminary assessment by the Sub-committee, the Surveyor-General will provide feedback to the surveyor (see [Appendix I](#)) with notification of their audit priority rating.

The Sub-committee reports to the Surveyors Board as a means of ongoing monitoring of any serious issues arising from the audit programs. As well as being targeted for more frequent audits the performance of surveyors in the high and very high audit priority categories is monitored by the Board. The Board has an intervention strategy for those surveyors who have a record of lodging very low compliance surveys and being assessed in the very high priority category for auditing.

Surveyors who take real and lasting measures to implement improvement practices will be under less scrutiny.

7 Audit priority rating and frequency of audit

Surveyors are assigned an audit priority rating (see [Table 7.1](#)) based on the results of their last three audits where the survey assessment has been used in their rating.

As a significant majority of lodged surveys are in low risk cadastres and most desktop investigations and random audit surveys demonstrate high compliance, not every audit survey assessment is used in a surveyor's audit priority rating. Depending on whether an audit survey is selected randomly or targeted will determine if its assessment is used in the surveyor's audit priority rating.

The assessment of randomly selected audits will be used in the surveyor's audit priority rating when:

- the survey is assessed as very low compliance, or
- two consecutive surveys are assessed as low compliance, or
- two consecutive surveys are assessed as high compliance, providing surveyors the opportunity to improve their audit priority rating.

The final assessment of all targeted audit surveys is included in the surveyor's audit priority rating irrespective of the level of compliance.

The survey assessment scores ([table 5.2](#)) of the last three audits are summed to determine the audit priority rating and frequency of audit.

Audit Priority Rating	Very Low Priority	Low Priority	Medium Priority	High Priority	Very High Priority
Audit Frequency	<3 years	<2 years	<18 months	<12 months	<6 months
Last 3 Audits	3 or 4	5	6	7	8 or 9
If only 2 Audits	2	3	4	5	6
If only 1 Audit		1	2	3	

Table 7.1

Surveyors may change their audit priority rating based on the assessment of their last audit survey and the results of their previous two audit assessments. Refer to [Tables 5.2 & 7.1](#).

Movement in audit priority ratings is also at the discretion of the Surveyors Board Audit Sub-Committee depending on the surveyor's audit, desktop investigation and LSSA plan requisition history.

8 Effectiveness of the audit & compliance framework

8.1 Monitoring and measuring

Monitoring and measuring the performance and effectiveness of the audit & compliance framework is essential to ensure the framework has an appropriate level of oversight, risk management, controls and governance.

A variety of qualitative and quantitative performance measures to evaluate the effectiveness of the framework have been developed:

- end of financial year annual report provided to the Surveyors Board to enable reporting to the Minister,
- biannual eNews articles to inform the profession of non-compliance issues,
- monthly reporting of surveyor's audit priority ratings to the Surveyors Board,
- key performance indicators (KPI) set and monitored.

8.2 Continuous improvement

Education and audit programs are reviewed annually by the Office of the Surveyor-General & the Surveyors Board Audit Sub-committee to ensure education to industry is focussed on the relevant issues and the audit program is focussed on relevant non-compliance issues.

Appendix A: Desktop Investigation - Checklist

Surveyor:	Plan:	Audit Surveyor:
Location:	Surveyor's Reference:	Examiner:

MC – Medium compliance LC – Low compliance VLC – Very low compliance NA – Not Applicable				
	MC	LC	VLC	Comments
Search adequate				
Survey report adequate				
Survey connected to at least three coordinated PSMs				
Bearing datum correct				
All relevant existing marks found or commented on				
All relevant occupation connected				
Redefinition correct				
Easements spatially correct				
Easements details correct				

Signed: Date:

Appendix B: Surveyor's Notification of intention to conduct an audit survey

In reply please quote: <File Number>
Enquiries to <Name>
Phone: <Phone number>
Email: <email address>



**Government of
South Australia**

PLANNING & LAND USE SERVICES
Level 10, 83 Pirie Street
Adelaide 5000

GPO Box 1815
Adelaide SA 5001

Telephone: (08) 7133 2300

Address Line 1
Address Line 2
Address Line 3
Address Line 4

Dear <Surveyor's name>

Notification of intention to conduct an audit survey

As part of the continuing program to monitor and improve survey standards in South Australia I am writing to advise you that the Surveyor-General intends to conduct a targeted audit (Section 44 of the *Survey Act 1992*) on a certified survey, lodged by you with Land Services SA (LSSA), within the next 12 months.

This notice comes as a result of a recent review by the Surveyors Board Audit Subcommittee into your survey D/F..... This survey was found through a desktop investigation conducted by the Office of the Surveyor-General (or the plan examination process by LSSA) to contain an error which under the audit assessment guidelines (Audit & Compliance Framework section 5.2.4) would have been in the very low compliance category.

(or in the event of multiple low compliances)

This notice comes as a result of recent reviews by the Surveyors Board Audit Subcommittee into your surveys D/F..... and D/F..... These surveys were found through desktop investigations by the Office of the Surveyor-General (or the plan examination process by LSSA) to contain errors which under the audit assessment guidelines (Audit & Compliance Framework section 5.2.4) would have been in the low compliance category.

Note that the 12 month period to select the audit commences from the date that D/F..... was lodged. Should a targeted audit not be selected within this 12 month period a random audit will be chosen instead.

Please contact me if you have any queries regarding this notification.

Yours sincerely

<Name>

Principal Cadastral Surveyor

<Date>

Appendix C: Audit Survey – Surveyor’s Notification

In reply please quote: <File Number>
Enquiries to <Name>
Phone: <Phone number>
Email: <email address>



**Government of
South Australia**

PLANNING & LAND USE SERVICES

Level 10, 83 Pirie Street
Adelaide 5000

GPO Box 1815
Adelaide SA 5001

Telephone: (08) 7133 2300

Address Line 1
Address Line 2
Address Line 3
Address Line 4

Dear <Surveyor’s name>

Audit on <Plan number – Area>

Your Reference: <XXXX>

As part of the continuing program to monitor and improve survey standards in South Australia I am conducting a <random><targeted> audit (Section 44 of the *Survey Act 1992*) of <Plan Number>.

Please supply a copy of your **original** field notes used in the survey within 14 days of receipt of this letter:

- for manually recorded observations and/or sketches we require a photocopy of originals.
- for digitally recorded observations we require an electronic copy of the observation file, or a printout of it, as well as a copy of graphics necessary to identify observation point numbers and descriptions.

We have advised (by mail) the registered proprietor, <owner’s name>, of the audit and our possible need for access. We would prefer to phone prior to our fieldwork; please advise their phone number if you have it.

Please contact me if you have any queries regarding this audit.

Yours sincerely

<Name>

Principal Cadastral Surveyor

<Date>

Appendix D: Audit Survey – Owner’s Notification



**Government of
South Australia**

PLANNING & LAND USE SERVICES

Level 10, 83 Pirie Street
Adelaide 5000

GPO Box 1815
Adelaide SA 5001

Telephone: (08) 7133 2300

In reply please quote: <File Number>
Enquiries to <Name>
Phone: <Phone number>
Email: <email address>

Address Line 1
Address Line 2
Address Line 3
Address Line 4

Dear <Registered Proprietor>

Audit of boundary survey at <Area Name>

<Address>

<CT reference>

The purpose of this letter is to advise you that the Surveyor-General will be conducting an audit of the boundary survey of the land described above recently carried out by <licensed surveyor’s name> of <name of Surveying company>.

Audit surveys are undertaken in accordance with Section 44 of the *Survey Act 1992*, and are part of a continuing program by the Surveyor-General in maintaining surveying standards in South Australia.

All surveyors licensed to carry out boundary surveys are included in the audit program; the audit does not carry any reflection on the competence of the surveyor concerned.

I expect the survey will be carried out within a week and your cooperation to allow a Departmental Surveyor to enter your property during the course of the audit survey, should the need arise, will be appreciated.

This audit survey is carried out at no cost to you and should not delay the Lands Titles Office processing of your survey.

Please contact me if you require further information regarding the audit survey.

Yours sincerely

<Name>

Principal Cadastral Surveyor

<Date>

Appendix E: Audit Survey Report

Surveyor:	Plan:	Audit Surveyor:	Audit Reference:
Location:	Surveyor's Ref:	Audit Fieldwork Date:	Examiner:

C – Compliant MC – Medium compliance LC – Low compliance VLC – Very low compliance NA – not applicable

Item Ref	Description	Compliance				Comments
		C	MC	LC	VLC	
	Accuracy					
NSG1 (1.2.1)	Perimeter misclosures					
NSG1 (1.2.4)	PSM coord joins					
NSG1 (1.2.2)	Positional accuracy of marks					
NSG1 (1.2.3)	Accuracy of measurement for coordinating PSMs					
NSG1 (1.2.2)	Occupation accuracy					
	Marking					
Reg 10 NSG2(1.2)	PSM, survey peg: type and size					
Reg 12(1) NSG3 (1.4)	New boundaries pegged					
NSG4 (1.5) CSG 14.3.b	Sufficient new PSMs					
NSG4 (1.6)	Protecting PSMs					
NSG4 (1.7.2)	PSM location cards					

Subject Land & Reference Mark Occupation					
		C	MC	LC	VLC
CSG 7.6.b					
CSG 7.3	PSM occupation				
CSG 4	Boundary Redefinition				
Redefinition Connection					
Reg 11(1)	Search prior to survey				
Reg 11(2) CSG 15.4, 15.7	Connection to marks				
Reg 11(2)	Connection to occupation				
Description of Evidence					
CSG 4.8	Peg ages				
CSG 7.5	Occupation description/age				
Survey Report					
NSG5 (1.2)	Accurate checklist provided				
Reg 22c NSG5 (1.4.4)	Coordinate error report and new PSM coordinate				
NSG5 (1.4.1)	Detailed survey report for data discrepancies				
NSG5 (1.4.2)	Gone PSM report				
NSG5 (1.4.3)	Natural boundary report				
PSM Connection					
NSG4 (1.5)	3 PSMs connected - sufficient geometric control				

Signed: Date:

Appendix F: Audit Report – Cover Letter (Low & Very Low Compliance)

In reply please quote: <File Number>
Enquiries to <Name>
Phone: <Phone number>
Email: <email address>



**Government of
South Australia**

PLANNING & LAND USE SERVICES
Level 10, 83 Pirie Street
Adelaide 5000

GPO Box 1815
Adelaide SA 5001

Telephone: (08) 7133 2300

Address Line 1
Address Line 2
Address Line 3
Address Line 4

Dear <Surveyor's name>

Audit on <Plan number – Area>
Your Reference: <XXXX>

Enclosed is the audit surveyor's checklist report for the audit of your survey <Plan number> at <area>.

Please consider items not shown as compliant in the report for amendment to your survey and/or response to me. Please contact <audit surveyor, email, phone> or me if you wish to discuss any of the audit findings.

Note the *Survey Act 1992* s45(2) details your rights where rectification is required by the Surveyor-General. If after your response we can not reach agreement the Surveyor-General must, if you so request, refer the matter to the Institution of Surveyors for advice.

Yours sincerely,

<Name>
Principal Cadastral Surveyor
<Date>

Appendix G: Audit Report – Cover Letter (High Compliance)



**Government of
South Australia**

In reply please quote: <File Number>
Enquiries to <Name>
Phone: <Phone number>
Email: <email address>

PLANNING & LAND USE SERVICES
Level 10, 83 Pirie Street
Adelaide 5000

GPO Box 1815
Adelaide SA 5001

Telephone: (08) 7133 2300

Address Line 1
Address Line 2
Address Line 3
Address Line 4

Dear <Surveyor's name>

Audit on <Plan number – Area>
Your Reference: <XXXX>

Enclosed is the audit surveyor's report for the audit of your survey <Plan number> at <area>.

Please consider all items not shown as compliant in the report for amendment to your survey and/or response to me. As the errors are medium compliance the overall survey will be assessed as high compliance and will not be reviewed by the Surveyors Board Audit Sub-committee.

Refer to Sections 5.2.4 & 5.2.5 of the Cadastral Integrity Audit & Compliance Framework document for detail of the errors and overall survey assessment criteria.

Please contact <audit surveyor, email, phone> or me if you wish to discuss any of the audit findings.

Note the *Survey Act 1992* s45(2) details your rights where rectification is required by the Surveyor-General. If after your response we can not reach agreement the Surveyor-General must, if you so request, refer the matter to the Institution of Surveyors for advice.

This audit, in conjunction with the results of your last two audits has been used to rate your audit priority as <XXXXX>. You can expect to be audited again within <XX> months from the commencement of this audit.

Yours sincerely,

<Name>
Principal Cadastral Surveyor
<Date>

Appendix H: Audit Survey Preliminary Assessment (Low & Very Low Compliance)



**Government of
South Australia**

In reply please quote: <File Number>
Enquiries to <Name>
Phone: <Phone number>
Email: <email address>

PLANNING & LAND USE SERVICES
Level 10, 83 Pirie Street
Adelaide 5000

GPO Box 1815
Adelaide SA 5001

Telephone: (08) 7133 2300

Address Line 1
Address Line 2
Address Line 3
Address Line 4

Dear <Surveyor's name>

Audit on <Plan number – Area> Your Reference: <XXXX>

The purpose of this letter is to advise you of the preliminary assessment of the <random><targeted> audit findings. Please refer to Sections 5.2.4 & 5.2.5 of the Cadastral Integrity Audit & Compliance Framework document for detail of the errors and overall survey assessment criteria. On this basis your survey, as lodged, contained:

Very low compliances	
Low compliances	
Medium compliances	

Under the guidelines the overall survey has been preliminarily assessed as <XXXXXX>, due to the <XXXX> compliance error.

All low & very low compliance assessments are reviewed by the Surveyors Board Audit Sub-committee (comprising two members of the Surveyors Board). Please contact me with any concerns or comments about the preliminary assessment to assist their review; next meeting is <insert date>.

The Surveyor-General will provide you with written confirmation of the final assessment of the plan and any feedback arising from the Sub-committee review.

<last two paragraphs should be deleted if, after approval, assessment is high compliance but not advised as such in the cover letter>

Yours sincerely,

<Name>
Principal Cadastral Surveyor
<Date>

Appendix I: Surveyor-General's notification of audit priority after sub-committee review

In reply please quote: <File Number>

Enquiries to <Name>

Phone: <Phone number>

Email: <email address>



**Government of
South Australia**

PLANNING & LAND USE SERVICES

Level 10, 83 Pirie Street
Adelaide 5000

GPO Box 1815
Adelaide SA 5001

Telephone: (08) 7133 2300

Address Line 1
Address Line 2
Address Line 3
Address Line 4

Dear <Surveyor's name>,

Audit on <Plan number – Area>

Your Reference: <XXXX>

The Surveyors Board Audit Sub-committee, comprising two members of the Board (currently Messrs. <Name> and <Name>), review all low and very low compliant finalised audits and subsequently advise the full Board and me of their review. The Sub-committee recently reviewed the audit of your survey and confirmed the previously advised errors and survey assessment ***[or otherwise - the Board may also choose to add more detail]***

In consultation with the Board an audit priority model has been developed and 5 levels of priority have been determined. Surveyors are assigned to one of these levels depending on the results of their current and previous audits. Under this model you have a <rating> audit priority rating.

This means you are due for audit within <XX months><years> of the current audit's commencement. Additional audits may arise as a result of uncertainties or discrepancies identified by Land Services SA or through desktop investigations undertaken by my Office.

Yours sincerely,

<Name>

SURVEYOR-GENERAL

<Date>