



Board of Surveying
& Spatial Information

Discussion Paper – Supervision

November 2021

Executive Summary

The Land and Mining Committee (LMC), in accordance with its charter, has been requested by the Board of Surveying and Spatial Information (BOSSI), to undertake a review of the document *BOSSI Determination – Supervision E1.1*.

The LMC, in consultation with the Training Committee (TC) and the Professional Audit and Investigation Committee (PAIC) has identified a number of matters that may benefit from further clarification in *BOSSI Determination – Supervision E1.1*.

The key topics of this Discussion Paper are:

- (a) General Supervision (Section 3.1)
- (b) Supervision Responsibilities (Section 3.2)
- (c) Site Attendance (Section 3.3)
- (d) Signing of Land or Mining Survey Plans (Section 3.4)

It is acknowledged that the issue of Supervision has varying impacts in the Land Survey and the Mining Survey fields, and any changes to the requirements of supervision must take this into account.

Finally, this discussion paper is not proposing any change to the important principle that **the supervising registered surveyor always takes full responsibility** for the work of the supervised person.

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1 Introduction

1.1 Context

1.1.1 Why a Discussion Paper?

BOSSI's Professional Audit and Investigation Committee (PAIC), on behalf of BOSSI, receives, reviews, and investigates complaints against registered land and mining surveyors. PAIC has noted that there is an increasing number of investigated matters, that to some degree, have issues relating to supervision as an underlying cause for the complaint.

In the last 5 years, the Board has found adverse findings in eight complaints which are directly attributable to a lack of supervision. However, PAIC also recognises that a significant number of other cases that, whilst not the sole reason, identify a lack of supervision as a contributing factor.

PAIC also deals with a significant portion of complaints (approximately 40% in the last 4 years) which are a result of unregistered persons undertaking land or mining surveys. Many of these complaints do not come to the Board's attention until after the 6-month statute of limitations expires. Often this is because it is not apparent to the consumer that the person engaged is not a registered surveyor, as there is no requirement to nominate the responsible Registered Surveyor on the plan.

The Board recognises that all Determinations should be reviewed on a regular basis, to ensure they reflect best practice, remain relevant to technology and surveying methods, and uphold the professional standards required of registered surveyors.

The Board also recognises that with the passing of the federal Mutual Recognition Amendment Bill 2021 there may be an increase in land and mining surveys either being undertaken, or supervised, by surveyors registered in other jurisdictions. It is therefore necessary for the Board to reflect on, and ensure, consumer protections are adequate.

BOSSI's L&M committee is undertaking a review of the current *supervision determination*, to consider if any amendments are required, to ensure the document continues to provide adequate direction and guidance to land and mining surveyors. A key part of the review process is seeking feedback from key stakeholders on the current document through this discussion paper process.

1.1.2 Discussion Paper Objectives

This discussion paper:

- sets out the current requirements for supervision of land and mining surveys;
- identifies and discusses opportunities for improving the current processes, guidelines, and educational actions; and,
- seeks input from all interested stakeholders on key discussion questions, with the ultimate aim of achieving the discussion paper objectives.

It is noted that the Board recently prepared a document "*Discussion Paper – Supervision of Candidate Surveyors*" (October 2020). That paper resulted in separating the definition of "Mentoring Surveyor" for the purpose of mentoring a candidate surveyor. It is not proposed to review that discussion paper or mentoring matters further herein.

2 Current Situation

2.1 Current NSW Legislation

In NSW only registered land surveyors can undertake land surveys, and only registered mining surveyors can undertake mining surveys, unless the person undertaking the survey is under the supervision of a registered land or mining surveyor. The requirements for supervision of land and mining surveys are set out in the *Surveying and Spatial Information Act 2002* (S.S.I. Act, the Act). The following is an extract of current legislation.

For Land Surveys:

21 Unregistered persons not to practise land surveying.

(1) A person must not—

- (a) carry out a land survey for fee or reward, or
- (b) advertise that he or she is willing to carry out a land survey for fee or reward unless the person is a registered land surveyor.

Maximum penalty—50 penalty units.

....

(3) Subsection (1) (a) does not apply to—

- (a) any **student of surveying**, or any **surveyor's assistant**, who carries out a land survey under the general supervision of a registered land surveyor, or
- (b) any other person who carries out a land survey under the immediate supervision of a registered land surveyor.

For Mine Surveys:

22 Unregistered persons not to practise mining surveying

(1) A person must not—

- (a) carry out a mining survey for fee or reward, or
- (b) advertise that he or she is willing to carry out a mining survey for fee or reward unless the person is a registered mining surveyor.

Maximum penalty—50 penalty units.

....

(3) Subsection (1) (a) does not apply to—

- (a) any **student of surveying**, or any **surveyor's assistant**, who carries out a mining survey under the general supervision of a registered mining surveyor, or
- (b) any other person who carries out a mining survey under the immediate supervision of a registered mining surveyor.

The *Surveying and Spatial Information Regulation 2017* (S.S.I. Reg., The Reg.) further provides to BOSSI a procedural mechanism, through a formal Board determination, to specify requirements to clarify compliance with the above.

(See Appendix One for relevant definitions extracted from the Act and Regs.)

Current BOSSI Determinations that have relevance for this discussion paper are:

- **BOSSI Determination – Recognised Qualifications:** This determination identifies the current Australian and New Zealand qualifications that are recognised for registration as a surveyor in NSW. This list of qualifications was last reviewed and updated in 2021.
(See Appendix 2 for a relevant extract from the Determination).

- **BOSSI Determination – Surveyor’s Assistant:** This determination:
 - defines the meaning of the term surveyor’s assistant.
 - sets out a process for BOSSI accreditation of a surveyor’s assistant; and,
 - specifies that general supervision may be used with surveyor’s assistants, subject to the supervising registered surveyor’s judgement.(See Appendix 3 for a relevant extract from the Determination).
- **BOSSI Determination – Supervision:** This determination:
 - sets out definitions for both supervision and supervising surveyor.
 - clarifies who can be a supervised person; and,
 - and outlines the requirements for both general and immediate supervision.(See Appendix 4 for a relevant extract).

The flow chart below (Figure 1) provides a visual representation of the current supervision criteria, as set out in the above-mentioned documents.

All determinations are available on the BOSSIE Web site.

(https://www.bossi.nsw.gov.au/publications/determinations_policies).

2.2 Automatic Mutual Recognition Scheme

In July 2021, a new Federal scheme commenced, permitting workers who are licensed or registered in one state or territory, to work in any other state and territory, without requiring registration or licensing in the second state or territory. This is known as Automatic Mutual Recognition of Occupational Registration Schemes.

NSW has successfully obtained an exemption for registered/licensed surveyors from the scheme for twelve months, until July 2022. This will allow time for BOSSI to consider the impacts of the scheme on the requirements and processes associated with land and mining surveys.

One such impact could be that a surveyor licensed, and located, in another state, could claim to provide general (or immediate) supervision to a person conducting a survey in NSW during a land or mining survey activity.

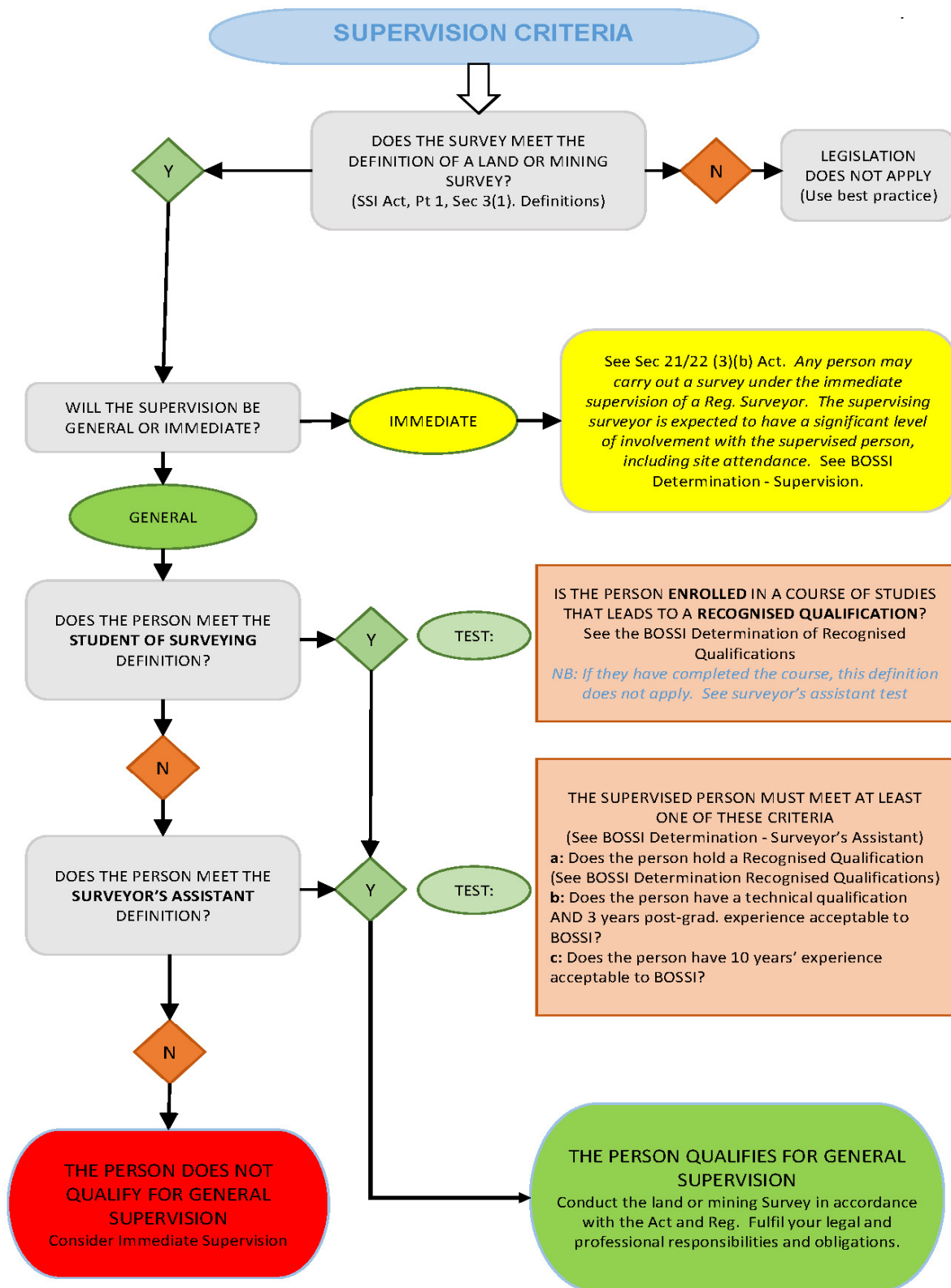


Figure 1 – Supervision Flow Chart

2.3 Supervision Requirements

The current *Supervision Determination* sets out the requirements for both immediate and general supervision.

In terms of immediate supervision, the current wording states immediate supervision “...includes but is not necessarily restricted to ...”. This implies that the points in the list that followed (shown below), were a requirement for immediate supervision.

- Briefing the supervised person on the purpose and details of their required duties before the supervised person commences their involvement with the survey and associated tasks
- Consultation with the supervised person in regard to the identification and resolution of work health and safety risks in the workplace
- Accompanying the supervised person on site as deemed necessary, particularly at the early stage of the supervised person’s training
- Being present on sufficient occasions to ensure that the supervised person’s questions and issues are able to be addressed expeditiously
- Inspecting the marking and physical aspects of the survey and associated tasks, including but not limited to the field notes, closes, etc.
- Upon completion of work, effecting checks and verification of the supervised persons work as to be confident of the quality and accuracy of the work product supplied. Again, it is noted that the supervising surveyor is solely responsible for the correctness of the surveys undertaken by a supervised person under their supervision and direction
- Discussing all aspects of the survey at the completion of their work

Where as in terms of general supervision, the wording states “ ... may involve ...”. This implies that the items in the list that followed (shown below), were not necessarily required for general supervision to be implemented.

- Instruction on the requirements for, and any unusual or difficult aspects of the survey and associated tasks and possible methods of approach, especially if new procedures are involved
- Consultation with the supervised person in regard to the identification and resolution of work health and safety risks in the workplace
- Progress checks of the unusual or complex features of the survey task
- A detailed and comprehensive review of the assignment on completion

Finally, the current situation in NSW relies on two clear positions.

- a. The supervising registered surveyor always maintains full responsibility for the work of the supervised person.
- b. The supervising surveyor uses their professional judgement to determine the level of supervision required for each supervised person.

3 Matters for Discussion

The Board has identified a number of items as requiring some consideration during this review process. These are set out in the following sections.

3.1 General Supervision

A person only qualifies for general supervision if they are a student of surveying, or a surveyor's assistant. Additionally, the registered surveyor supervising their work must be satisfied they are competent to undertake the relevant survey without immediate supervision.

3.1.1 Student of Surveying

Student of surveying means a person who is enrolled in a course of studies that leads to a recognised qualification. (Definition, S.S.I. Reg 2017)

A person may qualify for general supervision as a student of surveying, by virtue of being enrolled in a recognised qualification. However, whilst a person may be 'enrolled' in a course, they may not be actively participating in that course by way of completing units of study.

Consequently, BOSSI recently resolved that when candidate surveyors renew their annual enrolment, and they have not completed their recognised qualification, they must certify and provide evidence of their ongoing enrolment in a course of study leading to a recognised qualification.

The current definition also enables students of surveying who are relatively inexperienced to operate under general supervision. For example, a first year, first semester student may qualify for general supervision, even though they have no experience.

Question: Should a student of surveying, require a minimum term of study, and be subject to immediate supervision during this period, before qualifying for general supervision?

Question: If a minimum term of study and immediate supervision were to be introduced, what should the minimum period of study be?

3.1.2 Surveyor's Assistant

As the *Board Determination – Surveyor's Assistant* states:

*This formal Board determination defines a **surveyor's assistant** as a person:*

- a) who is the holder of a **recognised qualification**; or*
- b) is the holder of a technical qualification in surveying and who has three years practical experience acceptable to the Board in surveying since completion of that course of study; or*
- c) who has at least 10 years practical experience in surveying acceptable to the Board.*

Having regard to point a), it is apparent that registered surveyors are able to self-assess for compliance. Recognised qualifications are set out *Board Determination – Recognised Qualifications E1.1*, and the Registrar can provide additional information relating to international qualification, as required.

Having regard to points b) and c) of the definition, a person cannot be assured to meet the requirements of a surveyor's assistant until they have been advised that their qualifications and/or experience is "...acceptable to the Board." Only the Board can make this decision.

The Board has a process for applicants to apply to have their abilities and experiences assessed to determine if they qualify as a surveyor's assistants, but the Board has only received three applications for a determination of a person's acceptability as a surveyor's assistant in recent years (*Source: BOSSI Registrar, 2021*).

It is apparent therefore, that the profession is either self-assessing as to what they believe would be acceptable to the Board, or the profession is not aware of this requirement.

Question: Where a person has not completed a recognised qualification should they be required to apply to the Board for determination of their qualification as a surveyor's assistant?

Any change to the current situation may require amendment to the *Determination – Surveyors Assistant E1.1*, along with more effective communication and education of the requirements and definitions.

The Board may also consider methods to increase compliance with this determination, such as:

- Raise the profession's awareness of the definition of a surveyor's assistant.
- More effectively communicate to the profession the application process and criteria (currently available on the BOSSI website).
- Engage with TAFE and other registered training organisations to make technical surveyors aware of their responsibilities.

By ensuring more persons are accredited as surveyor's assistants, it is likely to increase awareness of their responsibilities to their supervising surveyor and increase the overall standard of professionalism of the land and mining survey profession, to benefit the consumer.

3.2 Supervision Responsibilities

Section 4 and 5 of the *current Supervision Determination* provides guidance of the requirements for immediate supervision and general supervision, respectively.

These descriptions have generally been accepted by the profession to identify the minimum standards of engagement required by a supervising registered surveyor.

Question: Should the Determination provide:

- a. a more prescriptive set of requirements for General and Immediate supervision compliance?***
- b. a list of the minimum requirements that must be achieved to satisfy the requirements of General and Immediate supervision?***

3.3 Site Attendance

The Board *Determination – Supervision E1.1* also recognises the need for the supervising registered surveyor to attend site, depending on the supervised persons experience and qualification. In relation to immediate supervision, this includes statements such as:

- Consultation with the supervised person in regard to the identification and resolution of work health and safety risks in the workplace.

- Accompanying the supervised person on site as deemed necessary, particularly at the early stage of the supervised person's training.
- Inspecting the marking and physical aspects of the survey and associated tasks, including but not limited to the field notes, closes, etc.

However, the determination provides this as a guide to best practice and is not a mandated requirement. Further, it could reasonably be concluded that the immediate supervision period of a person's training is the '...early stage...' of the persons training.

It is also noted that Section 21(3)(b) of the Act does not require a person under immediate supervision to have any qualifications or experience in surveying. Consequently, the current guidelines may afford the opportunity for a supervising registered surveyor to have an inexperienced unqualified person undertake a land or mining survey without the supervising surveyor ever visiting the site. This represents a risk to the consumer that is currently only dealt with in a reactive and litigious manner.

As noted earlier, it is apparent to the PAIC that inadequate supervision is a contributing factor in many of the prosecutions and disciplining actions undertaken.

Further, with the implementation of the federal government's automatic mutual recognition legislation, there is likely to be an increase in the supervision of land and mining surveys by surveyors registered in other jurisdictions.

Question: Should the supervision determination be amended to require the supervising registered surveyor to attend the site during the course of a survey being conducted under immediate supervision?

3.4 Signing of Land and Mining Survey Plans

Currently, not all land and mining surveys are required to be signed by the registered surveyor supervising a survey. Consequently, it is not always apparent that an unregistered person's work has been supervised, particularly where the supervisor may not be an employee or owner of a related business entity.

The Board regularly receives complaints alleging unregistered persons are undertaking surveys without supervision. Sometimes this is proven to be the case, but in many instances, there is a supervising surveyor simply not identified on the plan prepared.

Question: Should all land and mining survey plans:

- a. identify the responsible Registered Surveyor? and/or,***
- b. be identified by their BOSSI identification number? and/or***
- c. be signed by the responsible Registered Surveyor?***

4 Consultation

This discussion paper sets out a number of issues identified by BOSSI in relation to supervision of persons conducting land and mining surveys.

Further, a number of specific questions have been raised to facilitate feedback from key stakeholders. An online questionnaire has been developed to allow feedback on these

questions from all key stakeholders, and to obtain other relevant feedback on the issues. You can access the questionnaire at the following link:

<https://www.surveymonkey.com/r/LVSCBYM>

Please submit your feedback by close of business Friday 18 March 2022.

Appendix 1 – Definitions

The Act definitions include:

student of surveying has the meaning given to that expression by the Regulations.

surveyor's assistant has the meaning given to that expression by the Regulations.

land survey means a survey (other than a mining survey) that is carried out in connection with—

- (a) the reservation or dedication of land for any purpose, or
- (b) the creation, variation, transfer, or extinguishment of any interest in land, or
- (c) the preparation of a plan for lodgement under Division 3 of Part 23 of the Conveyancing Act 1919, or
- (c1) the preparation of documents required to be prepared under the Strata Schemes Development Act 2015 by a registered land surveyor, or
- (d) the identification or marking out, or both, of the boundaries of a parcel of land.

mining survey means a survey that is carried out for the purposes of the Work Health and Safety (Mines and Petroleum Sites) Act 2013.

The Reg. definitions include:

formal Board determination means a determination that has been made and published by the Board under clause 77.

surveyor's assistant means a person who has such abilities and experience as the Board considers appropriate to qualify the person to be a **surveyor's assistant**, as set out in a formal Board determination. (See Determination - Surveyors Assistant)

student of surveying means a person who is enrolled in a course of studies that leads to a recognised qualification. (See Determination - Recognised Qualification)

recognised qualification means any qualification that the Board recognises to be an appropriate qualification for the purposes of this definition, as set out in a formal Board determination. (See Determination - Recognised Qualification)

Appendix 2 – BOSSI Determination – Recognised Qualification - Extract

The following current Australian and New Zealand qualifications are recognised by the Board for registration as a surveyor in NSW:

- Curtin University – Bachelor of Science (Mine and Engineering Surveying) – recognised for mining surveying registration only.
- Curtin University – Bachelor of Surveying
- RMIT University – Bachelor of Applied Science (Surveying) (Honours)
- University of Melbourne – Master of Engineering (Spatial) meeting the subject and prerequisite requirements as noted on the Surveyors Registration Board of Victoria website.
- University of Newcastle – Bachelor of Surveying (Honours)
- University of NSW – Bachelor of Engineering (Honours) in Surveying
- University of NSW - Bachelor of Engineering in Civil Engineering & Bachelor of Surveying in Surveying
- University of Otago – Bachelor of Surveying
- University of South Australia – Bachelor of Geospatial Science – recognised for mining surveying registration only, for land surveying registration you must also complete the Master of Surveying.
- University of Southern Queensland – Bachelor of Spatial Science Technology (Surveying) – recognised for mining surveying registration only.
- University of Southern Queensland – Bachelor of Spatial Science (Honours) (Surveying)
- University of Tasmania – Bachelor of Surveying and Spatial Sciences – recognised for mining surveying registration only, for land surveying registration you must also complete the Graduate Diploma in Land Surveying

If a person holds a qualification not stated in the above list, it must be assessed to confirm whether it is equivalent to the above degree programs and meets the requirements as set out in *Attributes of Surveying Degrees: Australia and New Zealand* before that person is accepted as a candidate towards registration.

Appendix 3 – BOSSI Determination – Surveyors Assistant) - Extract

Surveyor's Assistant Determination

This formal Board determination defines a **surveyor's assistant** as a person:

- a) who is the holder of a **recognised qualification**; or
- b) is the holder of a technical qualification in surveying and who has three years practical experience acceptable to the Board in surveying since completion of that course of study; or
- c) who has at least 10 years practical experience in surveying acceptable to the Board.

A person may make an application to the Board to have their abilities and experiences assessed to determine if they qualify the person to be a **surveyor's assistant**. Applications, along with required documentation and payment of the applicable fee must be made via the BOSSI portal on the Service NSW website. A **surveyor's assistant** may carry out surveys under the general supervision of a registered surveyor who takes responsibility for their work.

Variations or exemption applications may be considered on application in writing to the Board.

Appendix 4 – BOSSI Determination – Supervision - Extract

1. Background

‘Supervision’ may be defined as the act, process, or function of overseeing, directing, or managing work, workers, or a project. The supervising surveyor takes full responsibility for the work of the supervised person.

A ‘supervising surveyor’ means a person who is a registered surveyor and supervises the activities of others in order to fulfil legal and professional responsibilities and obligations.

A supervised person may include:

- an unqualified person who acts under the registered surveyor’s direction and assists the registered surveyor in the performance of the registered surveyor’s legal and professional responsibilities.
- a **surveyor’s assistant**.
- a **student of surveying**.
- a candidate surveyor.
- other such person as the Board may determine from time to time.

3. Levels of supervision – ‘immediate’ and ‘general’

A supervising surveyor is solely responsible for surveys carried out under their supervision.

For different projects, the same supervised person may require general supervision in one task and immediate supervision in another. The supervising surveyor is responsible for correctly and appropriately allocating or assigning tasks commensurate with the abilities of the supervised person and providing the appropriate level of supervision for each task.

4. Immediate supervision

In relation to immediate supervision, the supervising surveyor is expected to have a significant level of involvement with the supervised person.

5. General Supervision

In relation to general supervision, the supervising surveyor continues to be wholly responsible for the work of the supervised person. However, the level of oversight and review is reduced, as compared to immediate supervision, ...

Regardless of what level of supervision is exercised, the supervising surveyor should be aware of any risks or circumstances which may not be evident from office examination and deliberations. This may require the supervising surveyor to visit the site.

6. Supervision in the office and in the field

Whether the supervised person is working in the office or the field, it is the role of the supervising surveyor to ensure that the supervised person is appropriately supervised. .
.. The supervising surveyor takes full responsibility for the work of the supervised person undertaken in the course of their supervision.