# Disciplinary Principles for Cadastral Surveyors A Case Study in Australia and New Zealand

## Brian J Coutts, New Zealand

**Key words:** discipline, cadastral surveying.

#### **SUMMARY**

Citizens and their governments are dependant on sound cadastral information for a variety of purposes from mapping to mortgage guarantees. The integrity of cadastral databases, in turn, is dependant on the professional standards and ethical conduct of those responsible for creating the data. It is therefore common to restrict the production of cadastral data to those with specific qualifications and experience and who, on that basis, have proven their competence to an accrediting body.

When complaints are received about surveyors who possess such accreditation and who may have made significant errors, not met the competency standards, or who have their honesty questioned, it is necessary initiate and carry out a judicial process to ascertain if the accusations can be substantiated. If it can, the board then needs to decide if they should suffer some penalty, be required to retrain or continue to be able to contribute data to the cadastre under specified conditions. Cases for investigation may be generated by the public, clients or government regulatory bodies.

The six Australian states and two territories, along with New Zealand, share a common origin of their licensing system. Protocols first promulgated in 1892 allow for reciprocity of license recognition between the nine jurisdictions. However, in the last several decades each jurisdiction has developed differing processes for dealing with the manner in which cadastral surveyors are disciplined following substantiation of a complaint. This paper describes the nature of the licensing bodies, definitions of professional misconduct that attract disciplinary action, the nature of the processes of dealing with complaints, and the penalties available to be imposed on surveyors found to be in breach of competency standards. It then discusses the principles involved in the fair and just handling of complaints.

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## 1. INTRODUCTION

Australia and New Zealand were developed progressively as British colonies from the 18<sup>th</sup> century onwards. Australia developed as a series of autonomous self-governing states (jurisdictions), and New Zealand came under the control of New South Wales before becoming self-governing in 1840. The Australian states federated in 1902 to form the single entity of the Commonwealth of Australia, but retained their state-level of government. It is at the state level that the regulation of the surveying profession remains, and there is no Commonwealth level of control over surveyors or surveying.

Surveyors were amongst the earliest settlers of both countries, and in the period of organised re-settlement of peoples of British stock through organised migration, land was sold to the new settlers with clear title after having been obtained from the indigenous owners by the government. That guaranteed title was obtained after the design and survey of settlements, be they urban, suburban, or rural. As titles were guaranteed by the government, as to ownership and spatial position, the government reserved the right to accept cadastral surveys only from those whom it considered competent to carry out such work. These surveyors were referred to as authorised, licensed or registered, according to the custom or whim of the chief government surveyor of the area.

Following a meeting in Melbourne, Australia in November 1892 the existing Australian jurisdictions and New Zealand entered into an agreement which recognised that those surveyors who had qualified in any one of the jurisdictions could, without further interrogation, qualification or experience, be licensed to practice in any other of the jurisdictions. That agreement persists to the present day. Australian surveyors commonly work in more than one jurisdiction, with a growing trend for firms to have offices in multiple states within Australia. In contrast, while New Zealand surveyors regularly cross the Tasman Sea to work in Australia, attracted by higher salaries and greater work opportunities, generally New Zealand surveyors are only licensed in New Zealand. There are no New Zealand practices with offices in Australia, or Australian firms with offices in New Zealand, though there is the occasional multi-national firm that have branches in both countries.

Each of the Australian states, New South Wales (NSW), Queensland (Qld), South Australia (SA), Tasmania (Tas), Victoria (Vic) and Western Australia (WA) and the two territories, the Australian Capital Territory (ACT) and the Northern Territory (NT), has its own surveying legislation and its own statutory authority empowered to accredit, either by licensing or registration, suitably educated and experienced surveyors, as does New Zealand (NZ).

TS 6J - Professional Qualifications and Mutual Recognition Brian J Coutts Disciplinary Principles for Cadastral Surveyors: A Case Study in Australia and New Zealand As noted above, the 1892 agreement continues to this day and is overseen by the Council of Reciprocating Survey Boards of Australia and New Zealand (CRSBANZ). This Council is made up of the Chairs of each of the Boards of the respective jurisdictions, although the Melbourne agreement has been augmented by the Trans Tasman Mutual Recognition Act 1997 (New Zealand) and the Mutual Recognition Act 1992 (Australia). While CRSBANZ has paid particular attention to ensuring that the standards of education have remained equivalent across jurisdictions, and that standards of competency for surveyors and the standards for surveys were maintained, there has been a tendency for universities within the jurisdictions to develop their own educational curricula and evaluation standards.

Competency standards, mechanisms for a cadastral surveyor to become licensed or registered, and methodologies and processes for dealing with complaints about professional misconduct and/or incompetency are the particular functions of accrediting authorities. However, any policies adopted by CRSBANZ are by accord, as the Council itself has no legal basis, but exists only by the mutual consent of its participants and in spite of its antiquity, has no authority to impose policies on its constituent boards.

In this paper direct reference is made to the legislation of each of the jurisdictions and advice has been sought from some members of the respective boards and their staff. State legislation used is listed in Appendix 1. There is no federal legislation in Australia with respect to standards for surveys or standards for surveyors.

There is considerable variation in the numbers of cadastral surveyors who hold licences within the jurisdictions, and the most recently available figures (2008) are given in Table 1. It should be noted that while some surveyors hold licences in more than one jurisdiction these duplications are not accounted for in the table. It is also known from Coutts (2007) that a proportion of cadastral surveyors in New Zealand at least, who hold licences do not carry out surveys that require a licence, and have not for some years.

Jurisdiction	ACT	NSW	NT	NZ	Qld	SA	Tas	Vic	WA
No. of Surveyors	71	972	83	727	617	132	70	514	245

Table 1: No. of cadastral licences in 2008-09 by jurisdiction

Licensing boards in a number of Australian states have concerns about the increasing average age of licensed surveyors and the inability of the profession to attract students into surveying, and into cadastral surveying in particular. The Surveyors Registration Board of Victoria has recently begun a significant marketing campaign with the objective of reversing this trend. In contrast to Australia, and most of the rest of the world, the number of licensed cadastral surveyors in New Zealand continues to grow. The reasons for this anomaly in New Zealand are explored in Hannah et al (2009), but are not the focus of this paper.

#### 2. LEGISLATION

Surveying is a regulated occupation in all of the jurisdictions within Australia and New Zealand. The extent to which it is regulated varies, although all jurisdictions started with the same principles. Changes in the professional environment began with the progressive introduction of university programmes throughout the region from the 1950s. Only the Australian territories have not had university programmes specific to their jurisdiction, while NZ, SA, Tas, WA each have one, with NSW, Qld and Vic each having two.

However, as recent societal demands and progressive governments have seen central intervention in markets as undesirable, and the regulation of markets generally and including the regulation of professions, has diminished to varying levels in the jurisdictions throughout region. In most instances the profession itself has been expected to take more responsibility for the maintenance of competence and the imposition of disciplinary measures on its own members. The models adopted vary from totally independent boards, through co-regulation models, to having the processes totally devolved to a professional institution.

The legislation under which the various boards operate reveals that, with the exception of WA and the NT, new statutes have generally been adopted since 2000. South Australia is notable for taking progressive measures with respect to their regulatory regime as early as 1993, well ahead of other parts of the region. It may also be noted that the model SA adopted, devolving disciplinary matters to the professional institute, has not been copied by other jurisdictions although Tasmania has come closest to following their model. While WA legislation dates from 1909, that state has chosen constantly to update its original statute, and NT has acted in a similar way, but from a more modern base.

#### 3. EXTENT OF LICENSING OR REGISTRATION

Throughout the jurisdictions of Australia and New Zealand there is a variance in what range of sub-disciplines of surveying the boards cover by way of regulation. In some of the jurisdictions regulation is restricted to cadastral surveying only. In others, the term registration is used to indicate government recognition of competence in cadastral surveying, and boards are authorised to extend their control into other aspects of surveying such as control surveys, engineering related to the provision of utilities for the subdivision of land, planning, and in a few cases as far as mining and hydrographic surveying. The focus of this paper is the discipline that all jurisdictions have in common, that of cadastral surveyors.

There is potential confusion over the use of titles to describe qualified surveyors. All Boards are required to keep public "registers" of surveyors whom they have deemed to be qualified to add to the cadastre, and therefore the use of the term "registered surveyor" would not be incorrect if used by any one who currently has his or her name on a register. However, the terms "licensed surveyor" has become prevalent throughout the region, and while it has been modified to "licensed cadastral surveyor" in New Zealand, in the ACT, NSW and Qld the term "registered surveyor" has been retained. It may be noted here that due to the small size of the ACT and the fact that it is totally surrounded by NSW, it has a Memorandum of

TS 6J - Professional Qualifications and Mutual Recognition Brian J Coutts Disciplinary Principles for Cadastral Surveyors: A Case Study in Australia and New Zealand

Understanding with NSW whereby NSW examines candidates on behalf of the ACT as required, and they share the same nomenclature, standards and requirements. However, within the profession there is still mixed use of these terms by those involved and, anecdotally, a lack of appreciation of any difference by the public and by some members of the profession. Given the long term historic use of the term "registered" it remains the one most commonly used by the public.

In each jurisdiction the respective legislation protects a title to identify those surveyors who are permitted by the government to carry out cadastral surveys that will be accepted into the cadastre for the purpose of creating titles to land. In some cases that is 'licensed surveyor' or 'licensed cadastral surveyor', and the remainder use the historic term 'registered surveyor'. The term 'registered surveyor' usually implies that the surveyor is qualified in sub-disciplines other than cadastral surveying, and that that is recognised by the government. In those areas where this is not so, it is the professional body that provides the recognition of these other skills, and may define those who have them with further titles. Table 2 identifies which title is used in which jurisdiction.

	ACT	NSW	NZ	NT	Qld	SA	Tas	Vic	WA
registered surveyors	$\checkmark$	$\checkmark$			$\checkmark$				
licensed surveyor			$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

Table 2: use of term licensed or registered

As jurisdictions recognise academic qualifications within their area of control, and as their empowering statutes have changed, they have tended to expand or restrict the areas in which they require competencies to be demonstrated. In the New Zealand case, the legislation specifically restricts the licensing regime to cadastral surveying, but requires competency in engineering and planning only to the extent that it relates to cadastral surveys. The balance of the subjects listed in Table 3 is are covered by the use of Professional Interviews for membership of the NZ Institute of Surveyors. Table 3 gives an indication of what subdisciplines boards test before adding applicants to their register.

	ACT	NSW	NZ	NT	Qld	SA	Tas	Vic	$\mathbf{W}\mathbf{A}$
urban cadastral	$\checkmark$								
rural cadastral	$\checkmark$								
strata tile	$\checkmark$	$\checkmark$							$\checkmark$
cadastral law			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
subd'n engineering			$\checkmark$	$\checkmark$	$\checkmark$				
engineering surveys	$\checkmark$	$\checkmark$						$\checkmark$	
control surveys				$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
town planning	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$				$\checkmark$
project management							$\checkmark$	$\checkmark$	
professional practice						$\checkmark$		$\checkmark$	
mining surveys									$\checkmark$

Table 3: range of disciplines evaluated by boards

It may be noted that WA includes mining amongst its core competencies while NSW allows for "registered mining surveyors" and Qld has provision for "mining" and "hydrographic" as endorsements to an original registration. In the case of Tasmania, its legislation explicitly allows for the recognition of qualified surveyors from other jurisdictions.

## 4. MEMBERSHIP OF BOARDS

Boards are constituted in their enabling statute and consist of a variety of designated types of people, and vary considerably in size. The following table gives an indication of the composition and number of members involved in each of the boards across Australia and New Zealand

	ACT	NSW	NZ	NT	Qld	SA	Tas	Vic	WA
private surveyors	3	3	4	4	3	7		2	2
community representative	1	1	1		2	1		2	1
government surveyors		1			1			1	
surveyor general	1*	1*	1	1*		1	1*	1*	1
lawyers						RGL		1	1
surveying teacher		1			1			1	1
others		6**			1	2			
Total	5	10- 12	6	5	8	10		8	6

<sup>\*</sup> denotes Surveyor General is ex officio Chair of Board

**Table 4: Constitution of licensing boards** 

The constitution of each board reflects the range of interests and powers conferred by their empowering statute – the greater the range of interest that the board has, the greater the range of competencies are required to be available to the board in any regulatory activity, albeit in assessing the standards required for competency, or for appreciating the technical details of a disciplinary hearing. In almost all cases the senior statutory officer, usually designated the Surveyor General, is a member of the Board and in some cases the legislation requires that the Surveyor General be the Chair.

In at least one cases, New Zealand, the Surveyor General is precluded from this position, and is ineligible to sit on the board when it is conducting a hearing to ensure there is no potential for conflict of interest. In majority of cases since the establishment of the present board in 2002 the Surveyor General has been the complainant in disciplinary actions.

However, in most jurisdictions the balance is held by practitioners. In disciplinary matters, this ensures that the validity of any complaint is evaluated by those with relevant expertise, and that a cadastral surveyor complained about has their case heard and decided by their peers. These are considered to be critical factors to be accounted for when establishing a regulatory board. It is also clear that almost all jurisdictions have embraced public representation on boards. With the exception of Tas and NT there are appointed lay members

<sup>\*\* 1</sup> mining surveyor, 3 spatial information industry,1 appointed by Minister for the Coal Mine Health and Safety Act, 1 by Minister for the Fair Trading Act.

whose purpose is to bring a public perspective to the considerations of the boards, and to add a degree of transparency to board decisions. It is noted that in the Tasmanian case the disciplinary actions are taken by the Director of Consumer Affairs and Fair Trading, presumably for similar reasons.

## 5. RANGE OF (MIS)CONDUCT OR OFFENCES

The terms used to identify when a surveyor on a cadastral register may be eligible for disciplinary action are generally found specified in each jurisdiction's legislation. The common general terms used are "professional misconduct" or "unprofessional conduct". Each jurisdiction has its own criteria as to what may constitute either of these, and are listed below. In order to deal with them adequately in a paper of this nature, the wording used has been generalised, and may not conform exactly to the specific terms used in particular statutes. The specific terminology of each jurisdiction, however, do remain of critical importance in the prosecution of any particular case. It is common for disciplinary provisions to apply if an alleged breach of professional conduct has been committed while the surveyor is on a register, but in some cases may specifically include surveyors who are no longer accredited (ACT, NZ) but who were on the register when the alleged offence or offences were committed.

Commonly defined offences are as follows:

- giving false or misleading information for registration (ACT, NT, NZ, SA, WA);
- certifying a survey accurate when it is known not to be (ACT, NT, NZ, Qld);
- certifying a survey that is unreliable (ACT, NT, WA);
- contravening practice directions, rules, or regulations (ACT, NSW, NZ, Qld, SA);
- contravening the jurisdiction's survey act (ACT, NSW, NT, Qld, SA);
- conviction of the surveyor for fraud, dishonesty or violence within or beyond the particular jurisdiction (ACT, NT, NZ, Tas, WA,);
- contravening any conditions of registration (NSW);
- failing to comply with an order of the Board (NSW, NT, NZ, Qld, WA);
- failing to comply with an order to correct a survey (NSW, NZ);
- an act of omission that demonstrates unfitness to be on the register (NSW);
- an act or omission that is defined as professional misconduct by the Act (NSW);
- being found guilty of an offence relating to surveys under another act (NT, SA, Tas, WA);
- bribery to obtain work (NT);
- habitual drunkenness or addiction to narcotics (NT);
- allowing another party to practice surveying in his or her name (NT, NZ);
- incompetency, negligence, or unethical conduct in carrying out surveys (NZ, Qld, SA, Tas, Vic, WA);
- certifying a survey without personally having directed or supervised it (NZ);
- falsifying field information (NZ);
- unreasonable and persistently exercising powers of entry (NZ);
- failing to exercise proper care in carrying out a survey (NZ, SA);
- failing to meet reasonable public expectations of a surveyor (Tas, Vic);

TS 6J - Professional Qualifications and Mutual Recognition Brian J Courts

Disciplinary Principles for Cadastral Surveyors: A Case Study in Australia and New Zealand

- conduct that is "unacceptable" for a licensed surveyor in good standing (Vic);
- acquiring an interest in Crown land open for "selection for alienation" (WA);
- being guilty of unprofessional conduct (WA).

In South Australia these may apply to a provider of survey services (i.e. a company) as well as a particular surveyor. This is the only jurisdiction where such an action is possible, with licensing being specific to an individual person in all other cases.

The offences listed above are those specifically mentioned in one or more jurisdiction. While they are listed in general terms in order to group similar offences together, it is clear that in many cases they may be overlapping, and that a specific term used by one jurisdiction in its definition, may be covered in another jurisdiction in a clause using more general terminology.

## 6. DISCIPLINARY AUTHORITY

The manner of carrying out of disciplinary functions is quite varied across the jurisdictions, although the overall principles that govern discipline are common. In general anyone can complain to a board about the conduct of a surveyor. It should be made clear that licensing boards do not become involved in boundary disputes. While boundary disputes do occur occasionally, if clients are dissatisfied with the outcome of a survey, their recourse is to take the disagreement to court, where arguments of law will prevail. Neither do boards become involved in practice-based issues between surveyors and their clients, such as disputes over fees. The disciplinary functions of boards are directly related to the competency of surveyors and, in some instances, the standards required for surveys.

In all cases, having received a complaint against a surveyor and before proceeding further, the complaint is first investigated. That investigation is carried out by qualified surveyors (either a board member or a surveyor appointed by the board) and a report is prepared. In some instances, where the complaint is lodged by the Surveyor General of the jurisdiction, a comprehensive investigation will have already been carried out. Boards are required then to establish whether a *prima facie* case exists for prosecution of the surveyor. It is from this point that processes tend to differ.

The simplest case is that of New Zealand, where the board itself will hold a formal hearing involving the complainant and the surveyor, hear all evidence, and then make a decision on guilt or innocence. It will then decide on the penalty to be imposed if the allegation is proven. Parties have the right to appeal to the District Court if they are dissatisfied with the outcome, in which case the matter will be heard at the next level of the judicial system, in the hope of overturning the board's decision, or amending the details of any Order (detailing the penalties) made by the board. A similar situation exists in Victoria.

At the other extreme, if a *prima facie* case is established, the board will then become the prosecutor, and take the case forward into the court system. In Tasmania, as there are few surveyors and all are reasonably well known to each other, to maintain fairness and avoid conflict of interest, the case goes straight to the Director of Consumer Affairs and Fair

TS 6J - Professional Qualifications and Mutual Recognition Brian J Coutts Disciplinary Principles for Cadastral Surveyors: A Case Study in Australia and New Zealand

Trading, who is empowered to discipline surveyors. A similar situation exists in WA where the Board will take a case to its State Administrative Tribunal. Again, in South Australia the Survey Advisory Committee investigates complaints, and if necessary takes an action to the court. Appeals in South Australia may also be lodged with the court.

In the ACT if disciplinary action is required, it will go to the state Civil and Administrative Tribunal for a disciplinary order. In the Northern Territory the board imposes a penalty and this may be appealed to the Licensed Surveyors Appeal Tribunal, a body chaired by a lawyer (appointed by the Attorney General) assisted by two licensed surveyors. In Queensland the board may impose some penalties with or without further investigation. Conversely it may establish a Disciplinary Committee consisting of a District Court Judge as chair and two surveyors, who will conduct a hearing. In this jurisdiction appeal is to the Court of Appeal.

It is clear that the details of the processes vary between all of the jurisdictions. However, there is a general commonality to the way in which the legislation approaches disciplinary matters:

- complaints may be received from anyone;
- investigations are carried out by qualified surveyors;
- participants have the right to be heard in support of their complaint;
- surveyors are entitled to defend themselves;
- first decisions are generally made by fellow surveyors; and
- there is always a right of appeal to the jurisdiction's judicial system.

#### 7. PENALTIES

Legislation in the various jurisdictions provides for a variety of penalties. In some jurisdictions there is a range of options available to the boards, while in others there are few penalties they can impose. Table 5 indicates the range of powers jurisdictions have to impose penalties for breaches of the matters referred to in Section 5. Again these have been generalised for simplification.

	ACT	NSW	NZ	NT	Qld	SA	Tas	Vic	WA
cancel licence	$\checkmark$								
suspend licence	$\checkmark$								
put under supervision		$\checkmark$	$\checkmark$		$\checkmark$				
reprimand	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
caution		$\checkmark$			$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$
require correction		$\checkmark$			$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$
require training	$\checkmark$	$\checkmark$			$\checkmark$			$\checkmark$	
impose conditions	$\checkmark$	$\checkmark$			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
fine		$\checkmark$			$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
recover hearing costs			$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$

**Table 5: penalties available to boards** 

## 8. COMMON PRINCIPLES

TS 6J - Professional Qualifications and Mutual Recognition Brian J Coutts

Disciplinary Principles for Cadastral Surveyors: A Case Study in Australia and New Zealand

FIG XXIV International Congress, 2010 Facing the Challenges – Building the Capacity Sydney, Australia 11-16 April, 2010. Despite common origins, in recent decades the Australian and New Zealand surveying jurisdictions have diverged in the details of how they administer the licensing of their surveyors. In this region, the view of intervention in markets has changed and the status of "the professions" has diminished. All of the jurisdictions have amended their empowering statutes in recent years and have at least attempted to keep up with contemporary societal mores. The main difference between the jurisdictions is the range of sub-disciplines within the general area of land surveying as it has been defined in this part of the world, by the laws of the countries and by the needs of the people the profession services. While there has been a degree of divergence in the detail of the systems, the principles that underlie them have remained in tact.

<u>Legislation</u>: Each jurisdiction has a statute that specifically deals with matters of cadastral surveying, including specifications for the qualifications required for accreditation as a cadastral surveyor who can add to the cadastre, the mechanism for gaining accreditation, and the way in which any breaches of fidelity are dealt with.

<u>Terminology:</u> While each jurisdiction interprets its accreditation according to its own rules, all are required to maintain and publish lists of those surveyors to whom accreditation to carry out cadastral surveys has been granted. In some cases surveyors are specifically licensed, and in other cases the term "registered" is used. The term "Registered Surveyor" may imply other accreditations.

<u>Boards:</u> Each jurisdiction has established a statutory body that is responsible for the administration of the accreditation of surveyors to carry out cadastral surveys acceptable to the government agency responsible for maintaining the cadastre. Individual bodies may have additional responsibilities. The membership of such bodies varies, but includes a strong representation of practicing cadastral surveyors, a member of the public, and the Surveyor General or representative (or the individual within the jurisdiction with holding equivalent responsibilities) of the jurisdiction.

<u>Offences:</u> There are a range of behaviours that are unacceptable for accredited cadastral surveyors, and these are explicitly defined by each jurisdiction. While there are various interpretations of what may be improper, a common thread runs through the definitions. It is unacceptable to not have personally carried out, directed or supervised a particular survey. The surveyor signs a declaration to that effect on submission of a survey to the cadastre, and cannot avoid responsibility by claiming some other person carried out the work. In making such a declaration the cadastral surveyor takes responsibility for the accuracy, reliability and integrity of the survey. Offences will have occurred if any of these are found to be untrue, and the surveyor may be disciplined.

<u>Discipline:</u> Natural justice is the over-arching principle of discipline. In all cases anyone may initiate an action against a cadastral surveyor. When this happens the surveyor is informed, may be asked for an explanation, and an initial investigation may be required. If there is substance to the complaint, then the complainant and the surveyor have the

opportunity to present there case to the disciplining body. The body may then impose a penalty if the accusation is proven. Penalties may include the removal or suspension of accreditation, reprimands, requirements for retraining, imposition of a fine, as well as being required to correct any deficiencies in the survey or surveys that brought about the complaint, and sometimes to contribute to the cost of the disciplinary process.

## 9. CONCLUSION

Australia and New Zealand both use the Torrens land title system. They also share a common historical background and cultural origins. Both countries have evolved legislation, rules and practices for the administration of their title system. In Australia this has happened with variations between the Australian states as there is no federal surveying legislation, with each state free to develop independently. Nevertheless, through the cooperation of the managers of the cadastres, it has been possible to maintain sufficiently common administrations that each of the states and New Zealand are able to maintain a reciprocal agreement that recognises that an accreditation to carry out cadastral surveys in one jurisdiction will be recognised in each of the other jurisdictions following application by an individual surveyor for accreditation.

This agreement can be maintained because of particular common elements within the surveying discipline. These are:

- a common language, both "national" and technical;
- similar educational systems and standards;
- universities offering compatible cadastral surveying courses in the larger jurisdictions;
- close cooperation between the responsible government agencies through bi-annual meetings of the Surveyors General of the jurisdictions relating to the standards for cadastral surveys;
- close cooperation between the boards of each jurisdiction relating to the standards for the education and training of surveyors, through bi-annual meetings.

The discipline processes described here are based on natural justice. The need for such processes is to maintain the standard of surveys that underpin the cadastre. The integrity of cadastre is necessary to ensure that the ownership of land, and the issue of title to land, is secure. Security of tenure to land is fundamental to the growing, or maintenance, of a national economy as it provides collateral to owners for borrowing money to build homes, or to build businesses that will in turn provide the fundamental necessities of shelter and income

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## **APPENDICES**

## **Appendix 1: Legislation consulted:**

Surveyors Act 2007 - Australian Capital Territory

Surveying Act 2002 - New South Wales

Cadastral Survey Act 2002 - New Zealand

Licensed Surveyors Act 1983 - Northern Territory

Surveyors Act 2003 - Queensland

Survey Act 1993 - South Australia

Surveyors Act 2002 - Tasmania

Surveying Act 2004 - Victoria

Land Surveyors Act 1909 - Western Australia

## **Appendix 2: Boards within the Australasian jurisdictions:**

Capital Territory Survey Practice Advisory Committee

New South Wales Board of Surveying and Spatial Information

Surveyors Board of the Northern Territory of Australia

Cadastral Surveyors Licensing Board of New Zealand

Surveyors Board of Queensland

Institution of Surveyors Australia South Australia Division Survey Advisory

Committee

Tasmanian Land Surveyors Accreditation Board

Surveyors Registration Board of Victoria

Land Surveyors Licensing Board of Western Australia

TS 6J - Professional Qualifications and Mutual Recognition

Brian J Coutts

Disciplinary Principles for Cadastral Surveyors: A Case Study in Australia and New Zealand

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## **BIOGRAPHICAL NOTES**

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Brian Coutts was the Chairman of the Cadastral Surveyors Licensing Board of New Zealand, from 2002 until February 2010. A former president of the New Zealand Institute of Surveyors (NZIS), he served as served as president of the Commonwealth Association of Surveyors and Land Economists (CASLE) from 2004 to 2007, and is a member of the Royal Institution of Chartered Surveyors (RICS) Geomatics International Professional Group Board. He is Associate Head of the National School of Surveying at the University of Otago in New Zealand and teaches introductory planning and New Zealand planning and resource management practice.

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