



Surveying and Spatial Sciences Institute

ABN: 22 135 572 815

Spatial Information and Cartography · Land Surveying · Engineering and Mining Surveying · Remote Sensing and Photogrammetry · Hydrography

3 August 2012

The Chair
State Development, Infrastructure and Industry Committee
Parliament House
George Street
BRISBANE QLD 4000

Dear Mr Malone

Re: Current inquiry related to Queensland's land tenure arrangements

I refer to the public announcement inviting submissions to the State Development, Infrastructure and Industry Committee not later than 3 August 2012 that are relevant to its terms of reference on land tenure issues.

The Surveying and Spatial Sciences Institute (SSSI) is an industry association with a membership of professional practitioners, equipment and software suppliers, technicians and other persons having employment or interest in government and private enterprise wherever knowledge of place and time makes a difference to socioeconomic, environmental and cultural outcomes. SSSI operates from a central office in Canberra (website at <http://www.sssi.org.au/details/region/4/cat/268/sub/270.html>) and is represented in this State by a Queensland Regional Committee (website at <http://www.sssi.org.au/details/region/4/cat/268/sub/270.html>)

I am currently the Queensland Chairman of the Land Surveying Commission Executive (LSCE - website at <http://www.sssi.org.au/details/region/4/cat/268/sub/400.html>). LSCE is the peak professional body for land surveyors in Queensland and consults routinely with the Queensland Government on changes to legislation, regulation and policy.

SSSI has a kindred organisation called the Spatial Industries Business Association (SIBA) with many persons as members of both organisations. SIBA concentrates on the business interests of its members (through a website at <http://www.spatialbusiness.org/>). However, both SSSI and SIBA agree substantially on the importance of ecologically sustainable development and the need for economic development that can contribute to improved standards of living for Australians.

Land tenure systems have evolved since ancient times on the basis that any attempt to occupy land and to use natural resources must manage the risks of instability from external and internal forces. Responses to external risks include military preparedness and an ability to maintain diplomatic and mutually beneficial trading relationships with other nations. Responses to internal risks depend on the ability to resolve disputes in ways that are seen as fair and reasonable. The aphorism that a house – or a kingdom - that is 'divided against itself cannot stand' dates from antiquity.

The idea that a sovereign power should deliver 'Law and Justice, in Mercy' is encapsulated in the Coronation Oath of Queen Elizabeth 2. Similarly, the Constitution of Queensland 2001 at s 69

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includes a special reference to the 'waste lands of the Crown' as part of a more general power for the Legislative Assembly to make laws for 'the peace welfare and good government of the colony'. Historically, the term 'waste lands' referred to lands where it may be difficult to establish law and order.

After federation, the colonies were referred to as States, the Commonwealth assumed control over defence and external relationships. However, the necessity of compromise with other nations on a variety of environmental and human rights issues means that people within the single lot of land might be governed by private property rules, local government rules, State legislation and Commonwealth legislation. Some of the complexity is inherent if some form of order is preferred to a chaotic situation that might occur otherwise. However some regulation is unnecessarily burdensome or restrictive and needs to be amended or redesigned completely.

The history of land settlement has often contained elements of idealism, self-sufficiency and notions of an ideal form of government. where concepts of 'closer settlement', squatting and monopolisation of land, 'unlocking the land', and 'living area' all related to how land could be parcelled, allocated, subdivided and transferred. Surveying history in Queensland is replete with stories about 'a chronic shortage of surveyors' but we have also experienced chronic underemployment of our resources extending over years from time to time. We would like the Committee to be aware of potential problems of obtaining people with the necessary 'ability, knowledge and skills' if any large scale developments are contemplated.

SSSI has no particular difference of opinion with the comments expressed in the Committee's transcript of proceedings dated 11 July 2012. However, we do have some concern that land tenure legislation should not be seen in isolation. In many respects, land tenure institutions are foundational and constitutional in character. Surveyors have been inclined to think of freehold, state leasehold and mining leaseholds as forms of tenure. Maps do not appear without considerable effort to integrate the work of many people working in different locations and through different generations.

Insofar as promoting viable agricultural enterprise is concerned, the committee could consider some of the inter-relationships between land and the revenues of State and local governments obtained through various taxes, rates and levies. Other issues include:

- The ability to merge consideration of freehold and state leasehold in forms of planned development where principles of the Body Corporate and Community Management Act and other possible arrangements may be applied. This would allow local initiatives to develop that are tailored to particular local circumstances.
- The potential for considering water allocations under the Water Act within the planning of developments. The principles of water allocation and trading are basically a system of corporate governance and have many similarities with water planning and trading that have origins in the National Water Initiative.
- The existing investments involved in designing the *Public Records Act 2002*, the *Right to Information Act 2008* and various Queensland Government Information Standards that are regulatory in character are failing to reach their potential. Unless ability, skills and knowledge are brought to policy implementation, the merger of information between departments and governments, and engagement with non-government entities will remain a matter of intense frustration. The quality of development generally depends on the scope and quality of advice that can be obtained without undue delay from a variety of information resources.

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In closing, SSSI is impressed with the use of the Committee system to ask questions and seek the advice that can lead to better government. Such a system of community engagement depends on its ability to establish credibility with all parties involved. SSSI is willing to participate and bring the best of our ability, skills and advice to assist the Committee in its deliberations. As a response to the potential of the Committee system, SSSI is currently examining its own procedures to improve the understandings of public policy issues within its own membership. Hopefully, and with some practice, we will be able to improve our response times and the quality of the advice we are able to give in a way that represents SSSI's diverse membership.

We have included an Attachment with key points and references that are likely to be pertinent to the inquiry. The attachment was limited in its extent by the deadlines required by the Committee if it is to function adequately.

Yours sincerely



Phillip J Pozzi

Chair SSSI Qld Land Surveying Commission

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ATTACHMENT

This is an attachment to a letter dated 3 August 2012 addressed to the State Development, Infrastructure and Industry Committee of the Queensland Parliament. The scope of the information is related to an inquiry on land tenures but is limited by the time constraints on the Committee itself and thus on the deadlines required for receipt of submissions.

The attachment contains information that may help place some of the issues into context:

- Historically - to trace the development of ideas about land tenure; and
- Functionally - to indicate some of the interrelatedness with other aspects of public policy.

Major land policy ideas that have influenced rural land use in the area now known as Queensland may be broadly summarised as follows:

- 1788 -1831 – land grants were made at the discretion of colonial governors on terms and conditions that were to apply. The problems of making land grants before boundary surveys became a particular point of criticism of Governor Macquarie's administration.¹
- 1829 -1859 – sales of land according to regulations made in Britain and founded on Wakefieldian principles.² These arrangements contributed to a rise of squatting arrangements that were eventually brought under some semblance of control through local squatting regulations supervised by land commissioners.
- 1859 -1884 – On separation from NSW, the Queensland Government attained constitutional power for self-government that included the appropriation of revenue from sale and leasing of Crown lands.
- 1884 -1927 – closer settlement policies aimed at reversing the effects of agglomeration and monopolisation of land resources.³
- 1927 to the present – some closer settlement moderated by the 'living area' concept to avoid mistakes of earlier closer settlement schemes.⁴

¹ Stephen H Roberts, *History of Australian land settlement: 1788-1820*, 2nd edn, first published in 1924, South Melbourne VIC: 1968, Part 1 'The period of experiments (1788-1831)', pp.1-76.

A C V Melbourne, *Early constitutional development in Australia: New South Wales 1788-1856; Queensland 1859-1922*, first published in 1934 by Oxford University Press, 2nd edn intro and ed by R B Joyce, St Lucia QLD: University of Queensland Press, 1963, Part 1, 1788-1823 provides detailed analysis of this early period

² Roberts, *History of Australian land settlement*, Part 2 – 'The period of Wakefield', pp.77-160, Part 3 – 'The squatting period (1831-1855)', pp.161-224. Melbourne traces the problems of land and its revenues through various stages of constitutional development.

³ Bill Kitson and Judith McKay, *Surveying Queensland 1839-1945: a pictorial history*, Brisbane QLD: Queensland government (Department of Natural Resources and Water; and Queensland Museum), 2006, Chapter 10 – 'Closer settlement', pp.119-134

⁴ John S Cook, *A cybernetic approach to land management issues*, PhD thesis, Brisbane QLD: Queensland University of Technology, 1994, Chapter 8 – 'Closer settlement policy and viability in agricultural production': Chapter 9 – 'Rate of return in leasing Crown lands'.

Prior to self-government of New South Wales in 1855, the more important constitutional powers regarding management of Crown lands resided in the British Parliament. The colonies were in dire financial straits before being allowed to use the capital from sales of Crown land as revenue.

Information Infrastructure

The work by Cook (2011) accessible at URL <http://eprints.qut.edu.au/40727/> sets out essential pieces of information required to establish governance in a variety of situations that grant permission to use resources. This is relevant to the issue of land grants or leases by the State.

Comment in relation to skill shortages

Extract from a working paper in progress:⁵

During the 1990s, theorists championed a naïve ‘capture theory’ in proposing that professions used their political influence to capture governments and create legislative barriers for those who wished to enter the professions. Supposedly, these barriers allowed rent-seeking and monopoly profits through lack of competition. However, many professional people are employed directly by government under employment contracts, or under contracts involving fee for service.⁶ Skill shortages do not necessarily lead to increased benefits or job security for skilled personnel in return for their working more hours under more stressful conditions. Governments have powers to create policies and other institutional arrangement that can provide long-term stability in the supply of personnel to allow a continuing flow of goods and services. The issues can relate to training; accreditation to undertake particular employment; paraprofessional assistance within various professions; and the ability to alleviate shortages through targeted immigration.⁷

⁵ John S Cook, A review of rationale for allocating costs and payments in producing and supplying public sector information, Part B of 2 Parts – Chapters 4, 5 and 6

⁶ John S Cook, *Debate on statutory control of the surveying profession in Queensland: 1907 to 1975*. Unpublished working paper, provides examples of government involvement in the surveying profession over several decades of land development; but the underlying issues resurface in current debate in education and health services. Information accessible online via URL <<http://eprints.qut.edu.au/28103/>>

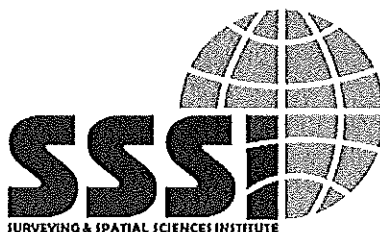
⁷ Many of these issues arise in relation to Australia’s health system.

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Tuesday, 7 May 2013

Attention Dr Kathy Munro

Dear Kathy

Please find attached a draft paper regarding matters raised, related to the Inquiry into Land Tenures across Queensland.

This paper has been prepared by the Land Surveying Commission of the Surveying and Spatial Sciences Institute in Queensland.

I understand that you have also spoken to Mr Richard Statham Principal Surveyor Titles Registry regarding this matter and he has referred this back through the Institute.

Please do not hesitate to contact me if you have any further enquiries.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Pozzi', is written over a circular stamp or seal.

Phillip J Pozzi

Phil Pozzi
Past Chair, Land Surveying Commission
Surveying and Spatial Sciences Institute, Queensland Region



Prepared by the Queensland Land Surveying Commission of the Surveying and Spatial Sciences Institute

Introduction

The draft paper has been prepared by the Land Surveying Commission (LSC) of the Surveying and Spatial Sciences Institute (SSSI) in Queensland. The SSSI is a national organisation.

The SSSI is the representative professional organisation for professional persons in Australia and Queensland that operate in the Surveying and Spatial Sciences. This organisation is comprised of members who operate in the private sector as well as the public and academic sectors.

As the SSSI is a broad based organisation, there are specific groups in the SSSI identified as commissions, tasked with the responsibility of providing specific representation and advocacy to those smaller specific groups.

The LSC represents the land surveying members of the SSSI.

The SSSI also has a close working relationship with the business association that represents businesses operating in the spatial information areas. This organisation is the Spatial Information Business Association (SIBA)

The SSSIQ LSC also acknowledges that a number of its members, including officers of the Department of Natural Resources and Mines (DNRM), have been particularly helpful in discussing these matters and providing advice as to background and solutions and the best path forward.

Integration of mining tenure records as administrative advices on titles

Over a number of years there has been considerable public comment on issues relating to subsidence and mine shafts, and information relating these and how they affect land, not being publically searchable or "discoverable" as part of every day property transactions.

There are a number of aspects to explore in this general observation.

Abandoned Mine Shafts

Abandoned mines and mine shafts are a major safety concern for the public, as well as a significant liability for the mining companies and the State.

For a number of years the "mines" part of DNRM has been in the process of rehabilitating these mine sites and capping mine shafts. This process is costing the State a significant amount of money, and it is understood that when shafts are capped they are located by surveyors and location plans, prepared as identification survey plans, are then stored by DNRM. These locations plans are not easily understood or accessed by the public. The public is largely unaware of the presence of a capped mine shaft on a property.

This process is outlined in detail as follows:

Queensland has a number of old mining areas where open mine shafts are a permanent reminder of mining activities of a past era. These old mine shafts are an eye sore and potential hazard. In 1997 the then Department of Mines (now part of DNRM) began a shaft capping program to safely cap shafts in residential areas. Predominately, the abandoned shafts capped since 1997 have been in either Gympie or Charters Towers.

The capping process involves removing all loose soil from around the shaft until a solid base is uncovered. Often a large amount of material is removed to reach solid bedrock which involves the construction of ramps to get the necessary equipment to the open shaft. Once a solid pad has been established reinforced concrete (generally five metres square and 300mm thick) is then laid over the shaft and the site back filled. To reduce the build-up of gases within the shaft cavity a breather (vent) pipe is also installed, however the breather may not be in the centre of the shaft or even necessarily over the shaft. The whole site is then back filled.

The capping program has been an excellent program which has been let down somewhat by DNRM (Mines) somewhat disjointed approach to locating the shafts once they have been capped. A number of different approaches were taken to locate capped shafts.

DNRM (Mines) engaged Consulting Surveyors to survey the caps and prepare a plan. Alternatively DNRM (Mines) has handed the responsibility over to the local authority for this. In some instances we understand the local authority may have connected the capped shaft to points of interest in the area (i.e. the kerb). Many of the shafts may not have been connected to either the existing cadastral boundaries or existing permanent survey marks.

Officers in DNRM (Mines) Abandoned Mines Unit (AMU) located the capped shafts with GPS and incorporated the results into databases held in the relevant district offices.

In some instances capped shafts were not located and their location is now unknown.

Where plans have been prepared of shaft investigations or locations the DNRM (Mines) Survey and Mapping Section has commenced having the plans captured by DNRM and linked through the survey plan data base.

As the majority of shafts are now capped and buried below what may be five metres of fill it is not possible to locate a shaft without an accurate survey record. Breather pipes are a guide, however with the passage of time these may also disappear. The caps are strong however they do remain a potential hazard that all land holders need to be aware of. In the future caps may fail or shafts may subside as the voids below the shafts collapse. Land owners installing swimming pools, bores or developers building underground parking areas may find these buried treasures.

All future owners and users of land need to know that a shaft has been capped on the land and the exact location of the shaft. We are aware that subdivisions have proceeded on some capped shaft sites and no easements, covenants or other boundary adjustments have been made to in any way accommodate the capped shaft. There is also no notification on the title of the potential hazard that lurks beneath the surface. Has the State allowed a series of future Collingwood Park type situations to arise in Gympie and Charters Towers?

A simple solution would be to put into place a fairly simple legislative fix to enable the "presence" of a capped shaft to be noted on a certificate of title. This noting could be by way of an administrative advice on title which is like a "warning note" which would inform a prospective purchaser that a capped shaft exists and would indicate that further searching need to be done to identify where the capped shaft is.

There are currently a number of administrative advices recorded on many titles relating to vegetation notices, water licences, owner builder notices for example and this additional administrative would provide a simple method of warning the public to the presence of these sites and shafts.

The "legislative fix" would be a fix similar to, for example, the provisions in the Strategic Cropping Act 2011 (sections 74, 75 & 163) which enable the recording of administrative advices on land. There would have to be made similar provisions in the various pieces of legislation that authorise mining activity and grant mining tenures, or possibly the mining legislation that deals with safety in mines.

The professions dealing in land, surveyors, lawyers, developers, are used to the concept of an administrative advice being a warning device.

This simple legislative fix would also be a "good news" activity as there are real tangible benefits to the community.

The administrative burden of this activity would be borne by the DNRM (Mines). It is suggested that this administrative task would be a limited one based on the limited number of capped mine shafts and the DNRM (Mines) already having ready knowledge and access to the identification of all the properties affected by a capped mine shaft. The preparation of lodgement of the administrative advices would therefore be a relatively simple task. This activity is dependent of the legislative fix being put into place.

Further to this issue there is a **broader concept** to discuss, and this relates to the presence of an underlying mining tenure over land, and the subsidence that is being

caused by underground mining activity, particularly historical mining activity. This is particularly evident in Collingwood Park near Ipswich.

Areas of Underground Mining Activity (Subsidence)

In areas where there is underground mining activity another option would be to expand the administrative advice concept to apply to all lands that are affected by underground mining activity.

Historically land has no upper or lower limit. In Queensland, particularly in areas where there is mining activity, land has been subdivided to identify land above a particular level and land that is below a particular level, the land below the level is then often subject to mining activity. The titles to the upper land and lower land are noted as such but this is not clearly understood by many users of the titles information.

Also to be noted is that tenures for mining activity are issues under the various Mining and Minerals legislation and are not dependent of the tenure of the land that is understood by ordinary landowners, for example freehold land.

In fact many owners of freehold land in Queensland are unaware of the underground mining activity, either historical or current that has occurred or is occurring under their land.

Underground Mines can continue to affect land long after mining operations have ceased. A clear illustration of this fact is Collingwood Park.

Collingwood Park is a residential housing area located in Ipswich South East Queensland over a number of old coal mines. The New Redbank Colliery mined the Bluff-Four Feet seam (the seam thickness was 15.2m) from the 1920's through into the 1930's. In 1959 the then Department of Development and Mines advised the Queensland Housing Commission that there was no danger of subsidence in the area now known as Collingwood Park. The Queensland Housing Commission purchased the land and began to develop it. The Redbank Plaza Shopping Centre is now located on the site of the old Redbank Colliery. Coal exploration and drilling programs commenced in 1965 and continued until 1969 over areas of Collingwood Park that were at that time predominately bushland.

Mining in this area continued through to 1987 and as the mine retreated, pillars may have been split; tops taken and floors stripped leaving roadways possibly up to 11 meters high and roadways up to 7 meters wide. The Mine varied in depth between 115 and 155 meters and extended under existing roads and built up areas.

In 1988 a significant subsidence event occurred in the vicinity of Lawrie Drive over a section of the Westfallen No. 3 Colliery. In April 2008 another significant subsidence event occurred this time in the vicinity of Duncan Street. As of August 2008 the total surface subsidence in the Laurie Drive Area was 2.2 m and in the Duncan Street area was 1.3 meters.

There have been a number of studies that have been commissioned which have considered pillar stability of the underground coal mines below Collingwood Park. All studies have in essence concluded that future pillar failure is likely and similar subsidence events will continue to occur unless practical mitigation works can be identified and undertaken.

The subsidence at Collingwood Park has forced many families to leave their homes and caused concern to many other residents. The State Government has spent tens of millions of dollars buying or repairing houses, commissioning reports and investigations and assisting the community and affected property owners. The costs are ongoing as steps are continuing to be taken to identify potential solutions to stabilise the underground mine workings.

In hindsight it is clear that mistakes were made in allowing coal mining operations to extend under an existing residential area. It is imperative that the problems that have occurred at Collingwood Park are not repeated elsewhere in Queensland.

There are hundreds of underground Mines (both operating and abandoned) in Queensland many of which are coal based. All these mines present potential subsidence hazards for any subsequent land developments.

Subsidence above coal mines is not a new issue, in fact it has been known about since well before the Welsh Miners first lead ponies into the pits. As outlined under the Coal Mining Safety and Health Act 1999 (CMS&H) and associated regulations extensive mine plans (statutory plans) must be lodged with the DNRM (Mines) Inspectorate each year and also at the completion of the mines life.

Unfortunately, the vast majority of these detailed plans which are prepared under the supervision of highly qualified and skilled surveyors are not incorporated into either DNRM (Mines) graphical database Interactive Tenure Maps IRTM or DNRM graphical database the Digital Cadastral Database (DCDB).

The enormous costs involved to correct the Collingwood Park experience make it clear that the information on statutory mine plans should be urgently incorporated into a publicly searchable graphical database.

The next subsidence event at Collingwood Park may not occur for many years by which time the current subsidence reports and media releases will be a tiny dot of data filed away in a forgotten archive. The issue is much wider than Collingwood Park and steps need to be taken to ensure all future land owners, planners and developers are advised that the land they may wish to purchase is located over an underground mine.

Again a simple solution would be to put in place a simple legislative fix similar to the one identified earlier to enable the "presence" of underground mining activity to be noted on a certificate of title. This noting could be by way of an administrative advice on title which is like a "warning note" which would inform a prospective purchaser that below the land there has been or still is underground mining activity.

The administrative burden of this activity would be borne by the DNRM (Mines). It is suggested that this administrative task would be a more extensive task in comparison to the previous task dealing with capped mine shafts. But the DNRM (Mines) does have existing and ready knowledge of land affected by subsidence from historic mining activity, and therefore the preparation of lodgement of the administrative advices may still be a relatively simple task, but of a larger scale. This activity is dependent of the legislative fix being put into place.

It is acknowledged that there is public access to all mining tenure information through the IRTM system and that particular system is a no cost to the user system, but for the average user of titles information it would be advantageous to have a simple "warning note" on a title.

The SSSIQ LSC and its members do recognise that mines tenures survey plans are available through the traditional searching mechanisms as well as images of these plans, and surveyors make use of this information regularly.

Areas of Underground Mining Activity (Current Mining Activity)

The previous discussion did focus on historical activity, both for abandoned mineshafts and historical mining activity causing subsidence. The scope of those activities is limited and the legislative fix suggested, enabling the recording of an administrative advice on affected titles could be achieved as a project by DNRM, with the legislative amendments and then the identification of affected titles and then the recording of an appropriate administrative advice.

But we should not necessarily limit this to abandoned shafts and historical mining activity.

There is scope to record against all affected current land titles of the presence of current mining activity. This is of course a much broader project and would require much more funding to achieve. Nonetheless it should not be discounted for that alone.

It may be a more effective option to "combine" the spatial databases, DCDB and IRTM to produce a single mapping product that an owner of land could access which would at least show the "overlap" of the owner's freehold tenure and the mining tenure.