

Legal approaches to the ownership, management and regulation of water from riparian rights to commodification

Transforming Cultures eJournal,
Vol. 1 No. 2, June 2006
<http://epress.lib.uts.edu.au/journals/TfC>

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Inclosure came and trampled on the grave
Of labour's rights and left the poor a slave
And memory's pride ere want to wealth did bow²

Introduction³

This paper offers a descriptive overview of the way in which New South Wales water law has developed and in so doing briefly considers Roman law, the common law of England, the common law of Australia and various statutory regimes for the public management of water. The paper also raises the issue of water regulation and management by reference to Garret Hardin's work, on the need to regulate a commons.⁴

In tracing the legal history of water management, special emphasis is placed on the *nature* of the rights created in, and in relation to, water. The nature of rights is significant because legal classifications determine how the object must be dealt with in terms of trade, succession,

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² J. Clare, 'The Mores', <<http://www.poemhunter.com>>. The poem deals with enclosure of the commons.

³ This paper was written for an interdisciplinary conference on 'Water: Fresh and Salt' and as such was designed for a largely non-legal audience.

⁴ G. Hardin, 'The Tragedy of the Commons', *Science*, 162 (1968): 1243-1248. Available at <<http://www.constitution.org/cmt/tragcomm.htm>>.

voluntary assignments (e.g. gifts), bankruptcy and compulsory acquisition, for example. To explain, the requirements for passing title in a chair, from A to B, (which is what a sale involves) depend on how a chair is legally classified. In being classified as personal property the sale of a chair will involve very different processes and regimes compared with say, the sale of a house, which is classified as real property.⁵ Non-compliance with these regimes will lead to a failure to pass title successfully in the interest and that, in turn, could lead to many unintended outcomes. For example, if property has not been transferred properly, from A to B, either at law or in equity,⁶ it may be the case that taxation liability will continue to accrue in the hands of the vendor. Such unintended (as well as other intended) outcomes are potentially relevant to water if it is to be traded.

Further the sphere of enforceability of the right is linked to legal categorisation. Accordingly, if a right is enforceable against third parties it is likely to be classified as property and if it is classified as property it is generally enforceable against third parties.⁷ If one holds property rights in goods, interference with those property rights may ground actions in the torts of trespass, detinue and conversion. Without a property interest in the first place these torts are unavailable. To take another example, where property (rather than some other type of interest) is compulsorily acquired by the Crown, the Commonwealth Constitution makes provision for compensation on just terms. Further, whether an interest in, or related to, property is sub-classified as (a) a legal interest (b) an equitable interest or (c) a mere equity, will have implications for how priority

⁵ Statute often overlays/modifies common law regimes on the issues of transfer and alienability.

⁶ Equity is a parallel jurisdiction to the common law. Its original justification was that it tempered the rigours of the common law. Equity began with the King (and later the Chancellor) meting out individualised and contextualised justice.

⁷ The issue is somewhat circular but in the legal, as opposed to moral sense, this much is clear; the flip side of right is a remedy and hence a right exists where a remedy is available. In regard to the sub-category of rights known as property rights, lawyers, philosophers, political theorists and economists continue to debate both their meaning and how best to define them. *Milirrpum v Nabalco* (1971) 17 FLR 141 offers some guidance by setting out some of the indicia of property which include: the right to exclude all others; the right to alienate and the right to use and enjoy. Without a right to exclude no-one has dominion. Without dominion there is no property. K. Gray, "Property in Thin Air" (1991) CLJ 252 refers to property as a 'bundle of rights' and K. Gray & S. Gray (1998) "The Idea of Property in Law", in Bright & Dewar (eds.), *Land Law: Themes and Perspectives*, Oxford University Press, p. 15 comment that property is "not a thing but rather a relationship which one has with a thing... 'Property' is...rather the word one uses to describe particular concentrations of power over things and resources." Chief Justice Gleeson and Gaudron, Kirby & Hayne J.J commented in *Yanner v Eaton* (1999) 201 CLR 351 that "'property' does not refer to a thing: it is a description of a legal relationship with a thing. It refers to a degree of power that is recognised in law as power permissibly exercised over the thing." See also *Bank of New South Wales v Commonwealth* (1948) 76 CLR 1 at 349 and *R v Toohey; ex parte Meneling Station PtyLtd* (1982) 158 CLR 327.

disputes between competing interests are resolved.⁸ Therefore, it can be seen that legal classifications may be significant, amongst other things, in the determination of remedies and in order to comply with the appropriate regimes for the transfer of rights.

In the context of trade it is also important to know (in a legal sense) what one is buying or selling. That knowledge will have an impact on the price a seller will ask and a buyer will pay because it will determine what can be done with the right or entitlement.⁹ Hence legal classifications, whether they be creatures of the common law or statute, are among the conditions of any emerging market in water and as such require specification and analysis.

Having first established why legal classifications (a) generally and (b) more particularly in the context of a (partial) water market have relevance,¹⁰ the paper then takes a more reflexive turn. It moves to focus on one of the fundamental issues, that of whether or not water is best managed by market forces. The commodification of water entitlements and the establishment of a water economy have won favour with policy and law makers. It is presently vogueish and has been warmly embraced. The rationale behind the shift is the encouragement of water use from low economic use purposes to high economic use purposes. Put simply, water will be used for purposes that yield better returns. Further, if water is more expensive to buy, the view is that it will be treated more reverently. The resource will become valued. But it is not clear that commodifying water entitlements and leaving the market to give them “value” is necessarily the best way to deal with the management of a resource about which there is a “common” or shared concern. The paper concludes by raising some questions about the trend to commodification and the implementation of water trading.

Background

Water, along with air, is one of the most valuable natural resources that the world has available to it. Yet, historically, in Australia, water has been used as though it were not a limited resource. It

⁸ NB Statutory variations may alter the common law priority rules.

⁹ Economic classifications of property are discussed in D.E. Fisher (2004) “Rights of property in water: confusion or clarity”, *European Public Law Journal* 200 at 201.

¹⁰ As is the case under the *Water Management Act* 2000 NSW.

has been used fairly freely and without much forethought as to how future generations would manage when there was less water to share amongst an expanding population.

There is now a lack (or at least reduced) availability of water in many areas. According to the Wentworth Group of Scientists, amongst others, this is because of poor policies and poor water management rather than simply water scarcity.¹¹ It is argued that the problem has been partially caused by the drought¹² but also because agricultural production activities have not yielded strong returns when seen against the backdrop of consequential external costs associated with the degradation of natural resources.¹³ Both city and rural dwellers have experienced the effects of the water problem.¹⁴ For example, in New South Wales low water levels in the Warragamba Dam,¹⁵ which supplies 80% of Sydney's water, meant that mandatory urban water restrictions were imposed on Sydney residents.¹⁶ In rural areas, farmers have been forced to buy in water and pressure on existing sources has revealed serious over-allocations of water.¹⁷ Michael McKernan's book, *Drought: The Red Marauder*, offers an account of just how harshly drought conditions affect the community, particularly the rural sector. He observed that "indignant surprise" has been a common response to drought in the past and he emphasised the pain of living through a drought when he quoted a World War 1 veteran, who said that he would 'sooner do 10 years at the war than one at the Mallee'.¹⁸

¹¹ For a discussion of present shortages and predicted shortages throughout Australia see T. Flannery (2003) "Annual Address to the Lionel Murphy Foundation", <http://lionelmurphy.anu.edu.au/memorial_lectures.htm>. Note that urban growth has placed increased demands of the supply of water. See also the Barton Group, Australian Water Industry Roadmap. See <<http://www.bartongroup.org.au>> (site accessed 6.6.06).

¹² Note that the average annual rainfall in Australia is 469mm/yr which is well below the global average of 746mm/yr. See <<http://www.savewater.com.au>> (site accessed 7.5.06).

¹³ See T. Jeyaretnam, *Wentworth's Group for Sustainability*, available at: <http://ees.ieaust.org.au/pdf/Wentworth_Group.pdf> (site accessed 6.6.06). Jeyaretnam is a Principal at the Sustainable Investment Research Institute, a Board Member of the Environmental Engineering Society and the Editor of *The Environmental Engineer*. It is argued, for example, that it is not efficient to grow high water using crops, such as cotton, in areas where there is insufficient water to do so. This is a low value economic use.

¹⁴ See <www.agric.nsw.gov.au/reader/drought>.

¹⁵ Warragamba Dam dipped to 38.8% of its storage capacity on 10 December, 2004. On 2 June 2005 the available storage in Sydney's supply reservoirs was 39.1%. See <<http://www.sca.nsw.gov.au>>.

¹⁶ See <www.sydneywater.com.au/SavingWater/WaterRestrictions>. Level 3 mandatory restrictions applied from 1 June 2005 e.g. hand-held hosing or drip irrigation systems on Wednesdays and Sundays before 10am and after 4pm only.

¹⁷ Over-allocations involve water users being entitled to take more water than there is available.

¹⁸ The Mallee is a Victorian farming district.

Although Australia is the driest continent (with the exception of Antarctica), its people are great consumers of water, using more than one million litres of freshwater per person each year or about 24,000 gicalitres.¹⁹ In fact, Australia has been ranked 40th in the world in terms of water access per capita.²⁰ Fortunately, the issue of hidden water use, originally largely ignored, has become topical and has entered public debate with the following figures forming part of the discussion.

It takes 41,500 litres [of water] to produce a kilo of meat
It takes 500 litres to produce one orange
It takes 1,340,000 litres to produces 1 tonne of aluminium
It takes 50 litres to produce a copy of Saturday's newspaper
It takes about 5000 litres of water to create a kilogram of rice
It takes 4 litres to produce a bottle of beer.²¹

In short, many people including environmentalists, irrigators, scientists, academics, lawyers, farmers, economists, Indigenous groups and political scientists have contributed to the dawning realisation that water availability is finite and our approach to its use and management needs re-thinking.²² Although reform packages need to incorporate a range of approaches including legal changes, policy development, scientific research and education programs, the focus of this paper is largely legal with some regard being given to policy issues.

In this context, it is useful to begin by considering how water has been legally classified and in that regard the Roman law classifications will be considered first.

¹⁹ See <<http://www.waterrating.gov.au/about/facts-figures.html>> (site accessed 7.6.06).

²⁰ See Barton Group, *Australian Water Industry Roadmap: A Strategic blueprint for sustainable water industry development - May 2005*, p. 34, <<http://www.bartongroup.org.au>> (site accessed 6.6.06).

²¹ From J. Archer, J. Hodges & R. Le Hunt, *The Water Efficient Garden*, 1993, Random House, Milsons Point, NSW, Australia, cited in <<http://www.savewater.com.au/default.asp?SectionId=5&SortTag=269&mode=print>>. Issues of the water shortage and water use are (at last) gaining some currency in the popular press as at June 2005.

²² Desalination plants and re-cycling schemes together with decreasing usage are the main 'solutions' suggested. <<http://www.smh.com.au/news/national/saltwater-for-the-east-and-dam-the-rest/2005/06/03/1117568381236.html>> (site accessed 6.6.06). See also J. Gray, 'The Water Problem- Directions and Alternatives for Management', Paper given at University of New South Wales Continuing Legal Education Forum: *Water Rights Law - Developments*, 7 June, 2006.

Roman Law - water as common property

According to Roman law, not all rights were conceived of as private.²³ *Res nullius* belonged to nobody. *Res publicae* belonged to the state and *res communes* belonged to everyone. Justinian notably classified the air, running water, the sea and the sea-shores as *res communes*. Rights over these objects were collectively referred to as *ius naturale*.²⁴

One of the key grounds on which a resource could be classified as *res communes* was that the substance in question was both plentiful and pure.²⁵ As running water was seemingly in abundance it made sense to characterise it in a way that allowed it to belong to everyone. All could use it freely and (so it was thought at the time) without fear of the resource running out. Water in flow was, therefore, seemingly unregulated under the Roman system of law and was categorised as common property.

According to Fisher, prior to the feudal system, Anglo-Saxon law “disclosed similar approaches”²⁶ i.e. in Britain, water was largely unregulated and regarded as common property.²⁷ Yet, the common property approach appeared to lose impetus in England and ultimately the common law, (originally grounded in feudalism) prevailed.

Under the common law system, the Roman oriented approach of *res communes* gave way to ‘rights of common’.²⁸ According to Holdsworth, rights of common (which were exercisable by commoners) included the right to take fish from someone else’s water and the right to take timber

²³ That is the case in common law jurisdictions too.

²⁴ *Institutes of Justinian*, Book 11, Title 1. See also J.B. Moyle, *Imperatoris Justiniani Institutionum*. 5th edition Clarendon Press, Oxford, pp. 193 & 194; and T.C. Sandars (1859) *Institutes of Justinian* (2nd ed.) Parkes & Son, London, pp.167-170 both as cited in D.E. Fisher (2000) *Water Law*, LBC Information Services, Sydney, p. 64.

²⁵ Fisher (2000:65).

²⁶ Fisher (2004:203-204). Fisher surmises that the form of resource management relating to fodder and fuel i.e. unrestricted use giving rise to a form of common property, also extended to water.

²⁷ W.A. Holdsworth (1936) *A History of English Law*, London: Sweet and Maxwell, Vol 11 p. 72-76 as cited in Fisher (2004:204).

²⁸ Note that in 1066 when William, the Conqueror, came to Great Britain he claimed almost all the lands for himself and set up a system of feudal tenures which allowed individuals to hold interests in land ‘of’ the Crown. Indeed the process of subinfeudation, by which more rungs were added to the tenurial pyramid may be seen as an acknowledgement of private and individual tenures (cf. common property) albeit tenures which involved substantial obligations in return.

from another's land for specific domestic purposes.²⁹ While rights of common included *profits a prendre*,³⁰ as these fishing and timber-taking rights are described, significantly rights of common did not extend to the taking of water.³¹ Instead *access* to water or the taking of water was regulated by the law relating to land use and the associated doctrine of riparian rights.³²

As the law relating to water developed it emerged that different legal rules applied according to whether:

- (a) the water was in flow in a river;³³
- (b) in the skies;
- (c) collecting on the surface of the earth in indefinite channels,³⁴
- (d) underground,³⁵
- (e) captured in a dam;
- (f) being pumped out of a river or;
- (h) being carried away in a vessel, for example.

Throughout the nineteenth century courts worked at establishing a more unified approach to water law but it took some time for a consistent thread to emerge. The Scottish case of *Linlithgow Magistrates v Elphinstone* demonstrated one early attempt at the classification of water in a river.³⁶ The following extract from *Linlithgow*, discussing (a) water in flow and (b) rights to use river water, notably echoes of some of the Roman law concepts discussed above. Lord Kames stated:

At advising this cause much darkness was occasioned by a notion which some of the judges unwarily adopted, as if a river could be appropriated like a field or a

²⁹ Holdsworth (1936:143-144) as cited in Fisher (2004:204).

³⁰ A *profit a prendre* is a proprietary right and it allows one or more parties to take resources from the land or water of another. It is distinguished from a licence in that it is a property right while a licence is a personal right, amounting to a permission.

³¹ For a discussion of this point see Fisher (2004:204).

³² To some extent easements were also relevant to water access rights.

³³ *Embrey v Owen* (1851) 6 Exch 353.

³⁴ See *Trinidad Asphalt Company v Ambard* [1899] AC 594 at 601 for a discussion of some of these issues.

³⁵ *Ballard v Tomlinson* (1885) 29 Ch D 115 at 120.

³⁶ *Linlithgow Magistrates v Elphinstone*, 3 Kames 331. The impact of Roman law on Scottish law is commented on by Fisher (2000:65).

horse. A river, which is in perpetual motion, is not naturally susceptible of appropriation; and were it susceptible, it would be greatly against the public interest that it should be suffered to be brought under private property. In general by the laws of all polished nations, appropriation is authorised with respect to every subject that is best enjoyed separately; but barred with respect to every subject that is best enjoyed in common ... Water drawn from a river into vessels or into ponds becomes private property; but to admit of such property with respect to the river itself, considered as a complex body, would be inconsistent with the public interest, by putting in the power of one man to lay waste to a whole country...

A river may be considered as **the common property of the whole nation** [my emphasis]; but the law declares against separated property of the whole or part... A river is a subject composed of a trunk and branches. No individual can appropriate a river, or any branch of it; but every individual of the nation, those especially who have land adjoining, are entitled to use the water for their private purposes. ...³⁷

Under this conception of common property everyone, including both riparian owners *and* others, could use river water in flow. As Lord Kames expressed it these rights resembled more of Justinian's *res communes* rather than his *res publicae*.

However, despite the fact that Roman law concepts, at times, influenced English (and by association) Australian law, Roman law did not form the foundation of either post feudal English law, or Australian law. Both modern English and Australian legal systems are common law systems.

Common law: Water in flow belongs to no-one

Terminology

Before embarking on a discussion of how the common law of England characterised water it is perhaps useful to clarify some terminology. The term 'common law' has several meanings including (a) 'judge-made' law; (b) law administered by courts exercising their legal rather than equitable jurisdiction and; (c) law based on the English system of justice rather than the civil system as exemplified by Roman law (and still underpinning much European law). The particular meaning more often than not needs to be adduced from the context in which the term is used. Clearly all the meanings listed above are different from the phrase 'the commons' and should not

³⁷ *Embrey v Owen* (1851) 6 Exch 353 at 361.

be confused with that term. The phrase ‘the commons’ is probably best associated with Justinian’s term *res communes* or the doctrine of common property under the common law.³⁸

Relationship of English common law to Australian law

Australia inherited much common law from England but how relevant that law was to Australian conditions and circumstances is debatable. English common law evolved in a culturally and geographically different place, several oceans away. While it may have been apt for a rainy climate, where rivers were clearly delineated water courses with deep banks, it was not necessarily apt for the driest continent in the world where rivers were often no more than shallow, red, dirt channels that gushed with muddy torrents a couple of times per year. Nevertheless, English common law formed the basis of Australian water law because when a ‘settled’ colony (as New South Wales was legally characterised) became part of the Crown’s dominion, the law of England became the law of the colony.³⁹ It is now well rehearsed that the reception of English law into Australia by this method was only ever meant to apply to law that was appropriate to the circumstances of the new land but that gloss was not widely applied and the common law of England, including its water law, became the basis of Australian law irrespective of its poor fit.⁴⁰ Indeed Justice Windeyer stated in 1962 that “it is beyond doubt that these rules [English common law rules] are a part, and an important part of the common law that Australia inherited.”⁴¹ Further it was noted in 1900 that the application of English law (with respect to riparian rights) to Australian conditions was a ‘source of insuperable difficulty’.⁴²

As discussed later under the heading “Further Limitations on Access to Water”, that inherited/received common law of England, particularly as it related to water, was modified by Australia’s own common law and statute. Later in 1992, Australian law generally and more

³⁸ For a discussion of ‘the commons’ both in an historical and contemporary sense see: S. Williams, D. Brunckhorst & G. Kelly (2003) *Reinventing the Common, Cross-boundary farming for a sustainable future*, Federation Press.

³⁹ Affirmed in *Mabo v Queensland (No2)* (1992) 175 CLR 1 where the Court found it could not overturn the settled colony doctrine in relation to Australia.

⁴⁰ For example there is a strong argument that the application of English common law was equally inapplicable to many circumstances of Indigenous Australians. See J. Gray (2002) “Is Native Title a Proprietary Right?” *Murdoch E Law Journal*, 9 (3).

⁴¹ *Gartner v Kidman* (1962) 108 CLR 12 at 23.

⁴² *Hanson v Grassy Gully Mining Co* (1900) 21 NSWLR 271 at 275.

specifically Australian water law, also had to take account of the newly recognised form of title known as native title.⁴³

How the common law characterised water in flow

Unlike the law of Scotland, the common law of England (at least according to *Embrey v Owen*) found that water *in flow* was not the subject of property.⁴⁴ The idea that something was not susceptible to a characterisation as property was not unfamiliar to English law. Other things had also escaped the proprietary classification. For example, at common law there was no property in a wild animal.⁴⁵ It was only when the captor of the animal was able to demonstrate ‘possession’ of it that he or she could protect his or her right in the animal against the rest of the world. Put another way, it was only then that the captor had a proprietary right. Cases such as these often turned on the question of what acts demonstrated ‘possession’. Accordingly, a fish was said to be ‘possessed’ only when it was enclosed in a net but not before.⁴⁶ A whale was ‘occupied’ by its hunters at the point it was harpooned. It remained occupied even if the harpoon fell out, so long as the rope from the harpoon restricted the whale’s movements enough to cause easy recapture.⁴⁷ An oyster could even be taken from the water without fear of the allegation of theft because it was a wild animal (*ferae naturae*) and not subject to ownership.⁴⁸ In more recent times other things have been found not be the subject of property. For example, there is no property in a spectacle⁴⁹ or a stem cell line.⁵⁰

In keeping with these cases, it would seem that the reason water in flow was found not to be the subject of property was that one of the key legal aspects of ownership, that is possession,

⁴³ *Mabo v Queensland* [No 2] 175 CLR 1.

⁴⁴ *Embrey v Owen* 6 Exch 353 at 369. Note that this discussion relates only to water in flow.

⁴⁵ *Pierson v Post* (1805) 3 Caines 175 (Supreme Court of New York).

⁴⁶ *Young v Hitchens* (1844) 6 QB 606; 115 ER 228. Note statute may over-ride this common law position. See fishing and fauna legislation in the relevant jurisdiction.

⁴⁷ *Littledale v Scaith* (1788) 1 Taunt 244; 127 ER 826; *Hogarth v Jackson* (1827) 2 C & P 595; 173 ER 1080. See statutory overlays.

⁴⁸ *Ex parte Emerson* (1898) 15 WN (NSW) 101. See statutory overlays.

⁴⁹ *Victoria Park Racing and Recreation Grounds Co Ltd v Taylor* (1937) 58 CLR 479.

⁵⁰ *Moore v Regents of the University of California* (1990) 793 P 2d 479. (Note this is an American case but the United States of America is a common law jurisdiction.)

observed through an ability to *control* the object in question, could not be demonstrated.⁵¹ While moving water is transitory and unstable, the requisite ability to control it cannot readily be legally demonstrated. Water in flow is untamed and wild rather like the whale and oyster referred to above. Further, it is perhaps the case that social policy and cultural reasons also contributed to water in flow escaping the proprietary classification in a raft of nineteenth century English cases that developed the law on water. Such cases may well have picked up on the view that one had to treat one's 'neighbours' fairly by sharing the resource with them.⁵² Water was, after all, necessary for the maintenance of life and unlike food it did not need to be tended, harvested or hunted. It was simply there. Such an approach would have been in keeping with the view that water was a gift from 'God' to all his/her creatures and should, therefore, be shared by them rather than appropriated privately.⁵³ It followed from this that there is no property interest, at common law, in the water of a free flowing river.

Common law- access to water in flow

Riparian rights

The situation appeared to be different when the subject of discussion was *access to water* rather than water in flow itself, according to Parke B in *Embrey v Owen*.⁵⁴ While water itself was not the subject of property, access to water was regarded as possible by virtue of one's ownership of the land through or over which the water flowed. The water to which these landholders had access, although described as a *publici juris* (a public right), was a term which in Parke B's lexicon appeared to represent something of a hybridisation, involving Justinian's concepts of *res communes* (belonging to everyone) and *res publicae* (belonging to the state).⁵⁵ Further, Parke B's

⁵¹ The legal concept of possession has been expressed as the ability to demonstrate sufficient physical control to ground an action in trespass.

⁵² Protection of neighbours' rights is evident in the words '[t]he owner must so use and apply the water as to work no material injury or annoyance to his neighbour below him.' See Kent's Commentaries in *Embrey v Owen* 6 Exch 353 at 370.

⁵³ This approach is reflected in the words, '[Rights to air and light, like water] also are bestowed by Providence for the common benefit of man' see *Embrey v Owen* 6 Exch 353 at 372.

⁵⁴ *Embrey v Owen* 6 Exch 353.

⁵⁵ These terms are discussed below.

use of the term *publici juris* seems to have imposed limitations on the more regular understanding of the term as can be seen below.⁵⁶ He stated that:

The right to have the stream to flow in its natural state without diminution and alteration is an incident to the property in the land through which it passes: but flowing water is *publici juris*, not in the sense of a *bonum vacans*,⁵⁷ to which the first occupant may acquire an exclusive right, but that it is *public and common* [my emphasis] in this sense only, that all may reasonably use it who have a *right of access* [my emphasis] to it, that none have any property in the water itself, except in the particular portion which he may take into his possession, and that during the time of his possession only. But each proprietor of the adjacent land has the right to the usufruct of the stream which flows through it.

This right to the benefit and advantage of the water flowing past his land, is not an absolute and exclusive right to the flow of the water in its natural state; if it were, the argument of the learned counsel, that every abstraction of it would give a cause of action, would be irrefragable; but it is a right only to the flow of the water, and the enjoyment of it, subject to the similar rights of all the proprietors of the banks on each side to the reasonable enjoyment of the same gift of Providence. It is only therefore for an unreasonable and unauthorised use of this common benefit that the action will lie;⁵⁸

Like Parke B, Starkie on Evidence⁵⁹ also referred to flowing water as '*publici juris*' but he also understood only riparian owners to have the right to usufruct (access) it. He said that:

The water in a running stream is *publici juris*, which each successive proprietor has a right to use in passing, but which is the property of no-one; but if one of such owners appropriates the water by applying it to a particular purpose, he has a right to do so, provided he does not thereby prejudice any other owner in his previous use and appropriation of the water to other purposes.⁶⁰

In turn the holders of riparian rights were restricted in their taking of water to the extent that they had to ensure that their use was not unreasonable, nor unauthorised.⁶¹

⁵⁶ Parke B traced the history of several water law cases before reaching his conclusion. See *Wright v Howard* (1 Sim. & S. 190); *Mason v Hill* (3B. & Ad 304; 5 id 1); *Wood v Waud* (3 Exch. 748).

⁵⁷ *Bons vacans* (or *bona vacantia*) means ownerless property. Ownerless property traditionally escheated to the Crown.

⁵⁸ *Embrey v Owen* 6 Exch 353 at 369.

⁵⁹ Starkie on Evidence, tit. Watercourse (vol 3, p1249, 3rd edit) quoted in *Embrey v Owen* 6 Exch 353 at 359. This position is in contradistinction to that of Lord Kames in *The Magistrates of Linlithgow v Elphinstone* 3 Kames' Decisions 331 noted above.

⁶⁰ Quoted in *Embrey v Owen* 6 Exch 353 at 359.

⁶¹ See Kent's Commentaries quoted in *Embrey v Owen* 6 Exch 362 at 370 and *Embrey's* case itself.

Water as a gift from ‘Providence’ to ‘Man’

As observed earlier, the nineteenth century English cases⁶² conceive of river water as a gift to the world; a gift which has to be shared and one that needs to be treated with some degree of respect so that degradation and serious diminution of it do not occur (hence requirements about protecting riparian neighbours’ rights to use.) Yet what resonates throughout these judgements is that at the centre of their narratives is ‘Man’ and ‘his’ needs and not the preservation of water and the riverine environment.⁶³ This point of distinction places these judgements in stark contrast to those more recent native title judgements (particularly the fishing cases) which include reflections on Indigenous water management in comparable historical eras.⁶⁴ In the native title cases there is a tendency to emphasise notions of stewardship, protection, care and maintenance of water. While Indigenous consumption features in these narratives it is not at the forefront whereas the picture is largely the reverse in regard to the English cases dealing with water use in the context of water grist mills, irrigation, farming and water diversions. The following words from Kent’s Commentaries reflect the prominence given by the common law to people rather than the environment. The Commentaries state that “[s]treams of water are intended for the use and comfort of man” and that “all the law requires of the party by or over whose land a stream passes, is that he should use the water in a reasonable manner, and so as not to destroy, or render useless, or materially diminish or affect the application of the water by the proprietors above or below on the stream.”⁶⁵ People and their needs are at the centre of this understanding of water management.

Yet people are often rapacious, short sighted, and self motivated. Individuals may put their needs above those of the society more generally and the preservation of a resource that all rely on to survive, might not be given priority. The resource might be ill-treated or ultimately destroyed. Such concerns lay behind Garret Hardin’s cry for control and regulation of resources that are for the common good.

⁶² See *Embrey v Owen* (1851) 6 Exch 353 along with *Wright v Howard* (1 Sim. & S. 190); *Mason v Hill* (3 B. & Ad. 304; 5 1d 1 and; *Wood v Waud* (3 Exch 748). Also see the American case of *Blanchard v Baker* (8 Greenl. American Rep.)

⁶³ A similar anthropocentric approach seems to pervade understandings of the enclosure of the commons of land.

⁶⁴ *Yanner v Eaton* (1999) 201 CLR 351; *Mason v Tritton* (1994) 34 NSWLR 572, for example.

⁶⁵ *Embrey v Owen* 6 Exch 362 at 370-371.

The tragedy of the commons

A call for control of use/ a need to regulate

As has been suggested, the nineteenth century English cases responsible for developing the law in relation to water indicate that water in flow was neither the subject of private nor public ownership. Accordingly, water in flow was not really common property nor an individual's private property. Later, as we will discover, legislation vested rights "to the use and flow and control of the water in all rivers" in the Crown but the ambit and nature of the Crown's rights proved to be contestable.⁶⁶ What has not been in dispute, however, is that water is a resource about which there is common concern. As a result, much of what Garrett Hardin, in his article, 'The Tragedy of the Commons', stated in relation to the preservation of a resource that all people need to use, remains relevant.⁶⁷

A central point of Hardin's thesis was that "[f]reedom in a commons brings ruin to all". Here the term 'commons' appears to be more grounded in economic understandings rather than legal ones and accordingly it relates to the use and management of a resource that is held by a community of users rather than to the rights which support that use and management of the resource. To continue, put another way, Hardin's thesis is that resources on which we all depend as a community need to be regulated because we cannot rely on Adam Smith's belief that individuals will be "led by an invisible hand to promote the public interest".⁶⁸ Hardin saw a range of resources such as water, air, national parks and farming land as being degraded by the unregulated use of society. Hence he suggested that:

[we] have several options. We might sell them [commons] off as private property. We might keep them as public property, but allocate the right to enter them. The allocation might be on the basis of wealth, by the use of an auction system. It might be on the basis of merit, as defined by some agreed upon standards. It might be by lottery. Or it might be on first-come, first-served basis, administered to long queues. These, I think, are all objectionable. But we must choose-or acquiesce in the destruction of the commons...⁶⁹

⁶⁶ See *Water Rights Act* (1896) NSW s1 (1).

⁶⁷ G. Hardin, 'The Tragedy of the Commons', *Science*, 162 (1968): 1243-1248. Available at <<http://www.constitution.org/cmt/tragcomm.htm>>.

⁶⁸ A. Smith (1937) *The Wealth of Nations*, Modern Library, New York, p. 423.

⁶⁹ Hardin (1968).

Whilst Hardin acknowledged that he did not particularly like any of the options above he felt compelled to make a choice in favour of one of them because to sit back and do nothing would have, in his opinion, meant the destruction of the particular commons and made it of ‘no value to anyone’.⁷⁰ Further, he was not of the view that an action taken to regulate the commons needed to be a perfect solution, pointing out that in other aspects of our lives we regularly accept imperfect solutions. In that regard, he suggested that anyone is capable of owning property through inheritance but if we sought a perfect solution to the issue of property ownership we would be compelled to place property only in the hands of those who were “biologically more fit to be the custodians of property”. He concluded this argument by stating that accepting “[i]njustice is preferable to total ruin.”

A need to regulate and issues of legal classification

At one level and on Hardin’s reasoning, it is perhaps unnecessary to be overly concerned with *how* water is classified. Whether it be a commons, common property or something else may be thought to be immaterial. For example, in a scientific sense, the legal classification of water in flow or rights to access it may not be greatly significant. What may be more important is that access to and use of water is regulated, controlled and managed so that the resource is not destroyed. Further, there may well be a concern that this is achieved bearing in mind the importance of accommodating both environmental and human dependency on water.

However, in a legal sense it remains important to establish how water is classified (as discussed earlier) particularly if the trading of rights or entitlements in or in relation to water is to be used as a means of promoting the protection and better management of the resource itself; an outcome sought by Hardin and others. Buyers and sellers need to know exactly what it is they are buying and selling. As noted earlier there will be different legal regimes for the transfer of differently legally classified objects or things.⁷¹ Classifications will also influence how one’s legal right will impact on another. For example, the establishment of some legal rights will destroy native title whilst others will not. Hence a statutory lease, such as that discussed in the *Wik* case, will not

⁷⁰ Ibid. Note that a similar debate presently exists about the commons of cyberspace.

⁷¹ At times the common law position will interact with a statutory one. For example, in the case of shares, transfers are to be affected according to the rules relating to *choses in action* transfers but also in accordance with the relevant statute which will usually have regard to the company’s articles of association.

necessarily extinguish native title but a common law lease will have the effect of extinguishment as would a grant of freehold title.⁷² Classification of an interest may also be legally important in a myriad of other circumstances, including (as noted earlier) a compulsory acquisition by the Crown. There we observed that if the acquired object is classified as ‘property’ its loss is compensable under the Commonwealth Constitution pursuant to s 51(xxxi).⁷³ Further, if there is interference with rights in or associated with water, a proprietary characterisation of those rights may ground an action in trespass, conversion or detinue, for example.⁷⁴ Finally, a property right will be enforceable against third parties whereas a contractual right will, *prima facie*, only be enforceable against the parties to the contract. Having established that there is a need to regulate the use and management of water and that legal classifications may be important in this task, it is helpful to explore further some of the regulatory attempts that have been made to date. These attempts may be seen as an application of Hardin’s call to do ‘something’ rather than ‘acquiesce’.

Further limitations on access to water

Control through riparian rights

As noted above early attempts at the regulation of access to water were achieved by the introduction of the riparian rights doctrine.⁷⁵ That doctrine regulated the number of users by tying water access rights to ownership of land adjoining rivers. It further introduced restrictions on how water was to be used by denying the right to degrade the water quality or quantity of another potential user.⁷⁶ Hence the riparian rights doctrine was more restrictive than the Roman civil law approach which found that “a river may be considered the common property of the whole

⁷² *Wik Peoples v Queensland* (1996) 187 CLR 1.

⁷³ *Re Director of Public Prosecutions; ex parte Lawler* (1994) 179 CLR 270; *Burton v Honan* (1952) 86 CLR 169.

⁷⁴ See J. Fleming (ed.) (1998) *The Law of Torts*, 9th, Sydney: LBC, p. 50; Gray & Edgeworth (2003:53-55).

⁷⁵ This paper limits itself to a discussion of the restrictions on water use as they pertain to riparian rights and access rights to water in flow (as surface water) under the *Water Management Act NSW 2004*. It does not deal with other doctrines or principles e.g. those relating to groundwater, water not in defined channels and harvestable water etc.

⁷⁶ *Embrey v Owen* (1851) 6 Exch 353 at 370–371 per Parke B stated that the riparian owner “should use the water in a reasonable manner, and so as not to destroy, or render useless, or materially diminish or affect the application of the water proprietors above or below on the stream. He must not shut the gates of his dam and detain the water unreasonably, or let it off in unusual quantities, to the annoyance of his neighbours”. For a more comprehensive discussion of the common law position in relation to surface water in flow see Fisher, (2001:64).

nation”⁷⁷ and accordingly could be used freely by everyone without restriction. Riparian rights were, by contrast, a form of control over access to a resource, albeit a resource that was not owned by anyone. Yet, on the Hardin analysis, *Embrey v Owen*⁷⁸ style riparian rights would probably have been regarded as too expansive. Even more controls were necessary.

Statutory frameworks for the public management of water

The broad restrictions contained in the common law riparian rights doctrine were developed further by the introduction, in New South Wales, of comprehensive water legislation in 1896. The key legislation in New South Wales is the *Water Rights Act* 1896 (NSW), the *Water Act* 1912 (NSW) and the *Water Management Act* 2000 (NSW). All these Acts reflect, in varying degrees and by differing methods, the control on use that Hardin called for in ‘The Tragedy of the Commons’.⁷⁹

Water Rights Act 1896 (NSW)

Significantly, this Act spelt out the types of water that vested in the Crown. It stated that:

The right to the use and flow and to the control of the water in all rivers and lakes which flow through or past or are situate within the land of two or more occupiers, and of the water contained in or conserved by any works to which this Act extends, shall, subject only to the restriction hereinafter vest in the Crown.⁸⁰

The second part of the same provision went on to provide for water management by specifying the outcomes the Act was designed to achieve. It stated:

And in the exercise of that right the Crown, by its officers and servants, may enter any land and take such measures as may be thought fit or as may be prescribed for the conservation and supply of such water as aforesaid and its more equal distribution and beneficial use and its protection from pollution, and for preventing the unauthorised obstruction of rivers.⁸¹

⁷⁷ *Linlithgow Magistrates v Elphinstone* 3 Kames 331.

⁷⁸ *Embrey v Owen* (1851) 6 Exch 353.

⁷⁹ It is unfortunate that there has been no uniformity of water legislation given that water knows not when it crosses a state boundary. Constitutionally rivers are the responsibility of the states but it is possible for the Federal government to legislate in regard to water as the result of the following sections in the Commonwealth Constitution: s 51 (v) defence; s 128 interstate trade; s 92 commerce; s 96 financial assistance; s 51 (xxix) external affairs.

⁸⁰ *Water Rights Act* 1896 (NSW) s 1(1).

⁸¹ *Ibid.*

Whether this section meant that the “rights of riparian owners were divested and vested in the Crown”⁸² or whether only those riparian rights described in part one were transferred to the Crown is a moot point⁸³ and has drawn discussion in the cases following *Hanson v Grassy Gully Gold Mining Co.*⁸⁴

But irrespective of that, it is worth noting that the intended outcomes of the 1896 legislation included the conservation and supply of water; the more equal distribution of water; protection from pollution and; the prevention of unauthorised obstruction of rivers.⁸⁵ These outcomes are not so very removed from the outcomes sought by the most recent water legislation in NSW, in the form of the *Water Management Act 2000* (NSW). Both Acts attempt to do what Hardin called for, that is, ‘manage’ water and place controls on its use so that the resource is not harmed. Yet, the methods of achieving the outcomes are quite different. Whereas the 1896 Act sought to vest rights ‘to the use and flow and to the control of the water in all rivers and lakes which flow through or past or are situate within the land of two or more occupiers’⁸⁶ in the Crown and thereby make the Crown the ‘manager’ of water, the *Water Management Act 2000* (NSW) which is discussed later, hands over, at least some of the management of water, to the market.

In the interregnum between the 1896 Act and the 2000 Act water legislation in New South Wales went through several iterations. The main Act governing water in New South Wales in this period was the *Water Act 1912* (NSW).

Water Act 1912 (NSW)

Crown rights in water move to Ministerial Corporations

The *Water Act 1912* (NSW) followed many of the principles in the 1896 Act. However, some important changes were brought about by the introduction, in 1986, of the *Water Administration Act 1986* (NSW) to which the 1912 Act became subject. The *Water Administration Act 1986*

⁸² *Hanson v Grassy Gully Gold Mining Co* (1900) 21 NSW 271.

⁸³ The latter seems to be the opinion of Fisher (2000:92).

⁸⁴ *Hanson v Grassy Gully Gold Mining Co* (1900) 21 NSW 271.

⁸⁵ For a discussion see L. Godden, ‘Perceptions of Water in Australian Law: Re-examining Rights and Responsibilities’ in ATSE 2003 Symposium, *WATER: The Australian Dilemma* accessed at <<http://www.atse.org.au/index.php?sectionid+629>>.

⁸⁶ *Water Rights Act 1896* (NSW) s 1(1).

(NSW) vested rights to water in rivers and lakes, water occurring naturally on the surface or ground, water conserved by any works and sub-surface water in the Water Administration Ministerial Corporation rather than as had been the case, the Crown.⁸⁷ The Water Administration Ministerial Corporation was given rights to take measures for specified purposes that included those contained in the 1896 legislation but went beyond them covering flood control and mitigation as well as environmental protection.

Basic Landholder Rights

Further, by the interaction of s 7 of the *Water Act* 1912 (NSW) and Schedule 2 of the *Water Administration Act* 1986 (NSW) the owner of land which formed the bank of a river or a lake was permitted to take and use water in the river or lake to:

- (a) water stock;
- (b) irrigate gardens not exceeding two hectares and associated with a dwelling house and;
- (c) irrigate land not exceeding two hectares used for non-commercial purposes associated with a dwelling house.⁸⁸

The public management of water was, therefore, linked to the shift of rights in or associated with, water from the Crown, to a Corporation responsible for bringing about designated outcomes. This occurred along with the creation of statutory rights vested in riparian owners.⁸⁹

Entitlements to water still tied to rights in land

Although the twentieth century marked an era of prolific statutory growth in regard to water (a growth that often related to the provision of infrastructure and irrigation schemes) the public management regime was one which still made entitlements to water derivative of rights in land.⁹⁰ All basic licences (s12, s13A), authorities for joint supply schemes (s 20B and s 20C), high flow licences (s 18) and high flow authorities (s 20B) were attached to specific land under s 16 and s 20F of the Act. Originally licences contained no volumetric allocations, being instead granted on

⁸⁷ See *Water Administration Act* 1986 (NSW) s 12(1); s 3.

⁸⁸ *Water Act* 1912 (NSW) s 7 (1)(a).

⁸⁹ See Fisher (2000:94) for a good discussion of this point.

⁹⁰ See P.L. Tan (2002) "Legal Issues Relating to Water Use" in *Property Rights and Responsibilities, Current Thinking*, Canberra: Land and Water Australia, pp. 13-42 at 15; see also Godden (2003).

the basis of the area of land that they had to service. (Four hundred acres was the usual area but there was no limit on the water used on the four hundred acres.)

Shift to volumetric entitlements

Later, in 1977, the licensing scheme under the 1912 Act altered from an area based one to a volumetric entitlement on 'regulated' streams (see Division 4B). The transition meant that licences on regulated streams were given six megalitres per hectare of allocation except for the Macquarie Valley where licences were given eight megalitres per hectare. There was no restriction on the area where the water was used within the land named in the licence.⁹¹ The benefit of the licence enured for the benefit of the occupier and accordingly the benefit was deemed to transfer with the land when the land was sold or passed by another means (eg by voluntarily assignment or court order.) Under the 1912 Act the right to access water (i.e. to take water from a particular source) and the right to use water (i.e. to apply it to a purpose) were granted under the same licence. Although observers rightly claim that the 1912 regime over-emphasised the principles of consumption rather than sustainability,⁹² it can be noted that in the 1980s and 1990s some irrigators were persuaded to relinquish a percentage of their allocations to increase environmental flows.⁹³

Trading under the Water Act 1912

Under the 1912 Act the trading of basic entitlements was introduced in 1986. That change marked a shift towards the commodification of water entitlements but the shift was not accompanied by the same vocal public discussion leading up to and since the introduction of the *Water Management Act 2000* (NSW).

⁹¹Oral and written presentation, Water Rights Law, given to LLM candidates by Paul Frederick, Partner, Kemp Strang Solicitors, on 14 April, 2005, at AGSM, Sydney. Organised by J. Gray, Faculty of Law, University of New South Wales.

⁹² See P.L. Tan (2003) 'Water Reform in NSW 1995-1999', 20 *EPLJ* 161 at 165 for a discussion of water consumption increases due to over-allocations under licences.

⁹³ See details above of the oral and written presentation, Water Rights Law (14 April 2005). Apparently, subsequent pushes for water reform have meant that these same irrigators have been again asked to give up more water through a reduced allocation.

From 1986 onwards permanent and temporary transfers were permitted under Div 4C and s 20 AG onwards of the *Water Act* 1912 (NSW). Hence under a temporary trade the holder of a water licence could transfer half of his/her allocation, for example, to another person even if that other person did not hold a licence him/herself. Temporary trades as their name suggests related to the selling of available water in a specific water year. (Water years run from 1 July to 30 June.) Expansion and modification of this trading regime was taken up in the *Water Management Act* 2000 NSW, which although commencing in 2001, contained many provisions, which did not come on line immediately.⁹⁴

Water Management Act 2000 (NSW)

Background

The *Water Management Act* 2000 (NSW) (WMA) is the most recent piece of legislation regulating water in NSW. Its genesis largely lay in the Council of Australian Governments (COAG) meeting in 1994, where an agenda for micro-economic reform of the water industry in NSW was agreed. Two key aspects of the agreed reform were (a) the sustainable use of water and (b) the introduction of mechanisms which permitted a more efficient allocation of water. Sustainable use found translation in the idea of environmental flows while efficiency was, in part, pursued by reference to water allocation and the associated concept of commodification. The pre-existing system of water allocation was regarded as imprecise and unsatisfactory. Investigation had revealed over-allocations of water (meaning that if everyone exercised their entitlement to take water, there would be insufficient water to go around). In the context of over-allocation and a degraded water environment, a view gained currency that the best way to address some of these problems was to separate out entitlements to water from rights in land and then to proceed with the establishment of a (partial) national water market. It should also be noted that National Competition Council payments (designed to encourage and reward the removal of barriers to competition) which were, in turn, tied to the satisfaction of Competition Policy, provided an impetus for water reform.

⁹⁴ NB The WAL trading provisions became operational in July 04 and as at June 05 the groundwater provisions were not yet operational. See also *Water Management Amendment Act* 2005.

Whereas earlier legislation, by investing the Crown and later Ministerial Corporations with the task of management, had sought to protect water as a community resource in which there was a common concern, the new legislation seeks to effectively manage water, at least in part, by relying on market forces. Water access is regulated according to market demands rather than at the hand of an over-arching government-based body. The legislation is premised on the view that the trading of entitlements to access water, will among other things, promote the efficient and equitable sharing of water from water sources and at the same give benefits to the environment, urban communities, fisheries, culture, heritage and Aboriginal people.⁹⁵

How does the WMA facilitate the commodification of water?

The key provisions which facilitate the commodification of water are those that lead to the ‘unbundling’ of water entitlements from rights in land and those that establish a regime for transfers. By severing land rights from water, water entitlements are *prima facie* free to be transferred independently but further questions arise in terms of (a) the nature of the object being traded and (b) the statutory regime directing the manner in which those entitlements can be traded.

What can be traded?

The *WMA* permits the trading of access to water. The right to access is a perpetual entitlement and is contained in a Water Access Licence (WAL) under the Act. The provisions relating to WALs became operational in July, 2004. WALs, in turn, consist of two parts: (a) a share component and; (b) an extraction component both of which are tradeable under s 71Q.

Water Access Licences

The share component provides the holder of the right to a specified share in the available surface or sub-surface water within a specified management area or from a specified water source. (Water management areas are more often than not synonymous with Water Catchment Areas.) Section 56 (2) states that the share component may be expressed as either:

- a specified maximum volume over a specified period;
- a specified proportion of the available water;

⁹⁵ *Water Management Act* 2000 NSW s 3.

- a specified proportion of the storage capacity of a specified dam or other storage work and a specified proportion of the inflow to that dam or work; or
- a specified number of units. (In practice this is the method that is used.)

The extraction component provides the holder with the right to take water at specified times, at specified rates or in specified circumstances (or any combination of these) and in specified areas or locations.⁹⁶ Hence it could, for example, specify the creek from which the water is to be taken and the months of the year when it may be taken. If an available water determination for that water source is announced by the Minister, the water allocation account for that licence will be credited with a volume of available water.

Under s 57 of the WMA there are several different types of access licences. They are: regulated river (high security); regulated river (general security); unregulated river, aquifer and supplementary water. The priorities between them are spelt out in s 58; a section amended by the Water Management Act 2005 whereby s 58(3) effectively permits the Minister to alter the priorities for those pursuant to s 58 (1). It should also be noted that there are three different types of tenure for WALs; they are continuing, specific purpose and supplementary. Further a register of WALs is kept at Land Property Information and although registration does not yet lead to an indefeasible title, as it does under the Torrens system of land holding, there is a plan to grant indefeasibility of title some time in the future.⁹⁷

Water Use and Water Supply Approvals

It should be noted that WALs do not permit their holders to *use* the water to which the holders have access, nor do WALs permit the construction of a water supply work. In order to use water in a particular way (eg for irrigation) one must apply for a Water Use Approval under s 89(1) of the *WMA* and in order to be able to pump water from where it is available a Water Use Approval must also be sought. Unlike WALs, Water Use Approvals are tied to the land. As a result they are not the subject of independent trade transactions.

⁹⁶ See s 35 (1) (b) *Water Management Act* 2000 NSW.

⁹⁷ Indefeasibility means that the title is conclusive.

How are Water Access Licences to be categorised legally?

If WALs are to be traded it is useful to establish their legal classification for many of the reasons outlined earlier.

WALs have many of the indicia of real property. For example, they can be used and enjoyed. Their holders can exclude others and WALs can be alienated or transferred.⁹⁸ Yet, in other ways WALs do not easily bear the mantle of property. For a start they are called licences and licences are merely permissions or consents. Licences are not proprietary in nature.⁹⁹

It is notable that the Second Report of the Working Group on Water Resources Policy stated that ‘before the possibility of widespread trading in water can occur, there is a need for property right arrangements formally to be put in place’.¹⁰⁰ Further, the Standing Committee of the Agriculture and Resource Management Council of Australia and New Zealand also noted that ‘current entitlements’ in water needed to be converted into ‘full property rights which will form a sound basis for inter-jurisdictional trade where applicable’.¹⁰¹ However, despite these calls the drafters of the WMA assiduously avoided using the ‘property’ label in the Act, when referring to access licences.¹⁰² Accordingly, scholars have debated whether even without the nomenclature, a WAL is still property.¹⁰³ The reason for the debate is not simply academic as noted above.

⁹⁸ *Milirrpum v Nabalco* (1971) 17 FLR 141.

⁹⁹ Nomenclature alone will not determine the nature of a right. Substance not form will be the determinant. See *Radaich v Smith* (1959) CLR 209.

¹⁰⁰ Commonwealth of Australia (1995) *Second Report of the Working Group on Water Resources Policy to the Council of Australian Governments*, Canberra, p. 12.

¹⁰¹ Agricultural and Resource Management Council of Australia and New Zealand, *Water Allocations and Entitlements*, Taskforce on COAG Water Reform on Occasional Paper No 1, Commonwealth of Australia, Canberra, 1995, at i.

¹⁰² When this was raised with Mark Hampstead, of the Department of Natural Resources and Infrastructure, at a UNSW, CLE Water Seminar in November, 2003 he stated that the reason for the absence of the property label was ‘political’.

¹⁰³ Godden (2003); J. Sheehan (2003) “Water Property Rights in Australia”, conference paper presented to the Pacific Rim Real Estate Society Conference, Brisbane, 20 January, 2003 accessed at <www.prrs.net/Papers/Sheehan_Water_Property_Rights_In_Australia.pdf> (site accessed 6.6.06).

Whether a WAL is legally property has not yet been tested through litigation but the trend at the moment is to call a WAL, ‘statutory property’.¹⁰⁴ This means that it is not property under the common law. It is only property because statute has made it property and hence the WAL’s limits and characteristics are determined according to the statute creating it rather than common law understandings. Godden notes that “it may be counter productive to import older common law forms and understanding, such as traditional property constructs” into the definition of water entitlement and well she may be right.¹⁰⁵ Perhaps the statutory property approach which permits WALs to be seen as *sui generis*, in the same way as pastoral leases have proved to be since the *Wik* decision, is better.¹⁰⁶ However, a concern would be if such a *sui generis* classification, for a right born out of statute, caused WALs not to be regarded as property. In such circumstances it may be that the holder’s rights were limited. There have been cases where courts have not always equated statutorily spawned rights, dependent on administrative dispositions, with common property interests.¹⁰⁷ In the context of compulsory acquisitions this may be relevant to the issue of compensation.

It is, however, worth noting that merely having its origins in statute (as did a pastoral lease and as does an access licence) may not alone, necessarily be sufficient reason to remove a right from the property domain. Other interests created by statute, such as the title of a registered proprietor of land held under the Torrens system, are still characterised as property although those rights are creations of statute.¹⁰⁸ (Title is gained by compliance with the statute’s registration system.)

¹⁰⁴ This term appears to have gained currency in the Department of Planning and Natural Resources; the department that primarily administers water law. Mark Hampstead of DIPNR explained this term at the UNSW CLE Seminar, ‘An Update on Water Rights Law’ Sydney, 2004.

¹⁰⁵ Godden (2003).

¹⁰⁶ *Wik Peoples v Queensland* (1996) 187 CLR 1.

¹⁰⁷ Godden (2003); M. Dyson (2002) “Using Existing legislation to Recover and Protect Environmental flows in the River Murray”, Land and Water Australia, *Property Rights and Responsibilities Current Australian Thinking*, AGPS, 73.

¹⁰⁸ Whether or not characterising WALs as property is actually desirable is an issue beyond the scope of this paper. Suffice it to say that the argument against using the traditional common law property forms, because they may not be sufficiently capable of capturing the nuances of the rights or entitlements that water management in the twenty first century needs to rely on, has some merit. See Godden (2003). In a sense an analogy can be drawn here with Native Title, in that traditional property law concepts appear inadequate to capture the diversity and range of traditional law concepts that are reflected in the ‘recognition space’ of native title.

The discussion above has concentrated on WALs but trading is not limited to the WAL itself. Water allocations, as distinct from the whole or part of a share component, may be traded. Further entitlements under a WAL may be only temporarily traded. Such temporary trades are known as temporary transfers and they are akin to leases.\. Hence it is useful to consider the trading provisions in more detail.

What is the regime for transfer of WALs or parts thereof?

The trading procedures are technical and complex. A transfer of a WAL itself is possible under s71M, while a term transfer under a WAL is possible under s 71N. The subdivision of WALs is also permitted under s 71P as are the assignment of rights under WALs by virtue of s 71Q and the assignment of water allocations between WAL holders by virtue of 71T.

In order to transfer a WAL or part thereof from vendor to purchaser there must be compliance with the provisions set out in the statute, as they pertain to trading and conveyancing.

Conclusions regarding WALs

It remains to be seen whether these approaches to water management will successfully promote the goals of water reform and offer a better alternative to water management than past policies and practices which gave the State the capacity to control and distribute water according to human and environmental need.

The impetus to promote water reform through market forces has, as noted above, gained momentum but perhaps some caution should be exercised before simply accepting this approach as the best on the basis that it is now operational and because it is popular.

The conclusion of this paper raises some basic questions about the premise that commodification is necessarily the best approach, as well as highlighting some issues surrounding the implementation of a commodification approach to water.

Questions regarding commodification as a technique of water management

As noted above, many stakeholders in the water debate favour the commodification of water as a technique of management. The Irrigators' Council, the Wentworth Group of Concerned

Scientists, the National Farmers' Federation and the Barton Group to name but a few, have embraced the establishment of a water market as a means by which water can, at least in part be managed. Although groups such as these were vocal about the mechanics of specific draft legislative provisions during the developmental and consultative stages preceding legislation implementation, the *idea* of a water market was taken up enthusiastically. However, evidence on the potential for the failure of water markets suggests that caution would be prudent.¹⁰⁹ Indeed in several international jurisdictions, including Argentina and Bolivia there has been dissatisfaction and discontent with the introduction of water markets. In Yogyakarta, Indonesia, a protest by the People's Water Concern Alliance on 4 June, 2005, saw hundreds of demonstrators including students, farmers and non government organisations demanding that water management be returned to its social function rather than letting it go down the path of a tradeable commodity.¹¹⁰

A number of issues concerning water trading in the NSW context deserve attention. Some of these are set out below.

i) Water barons

If water access licences, for example, are able to be bought and sold on a water market, it may be possible for some parties to accumulate large entitlements to water, creating what has become known, in common parlance, as 'water barons'. A market failure could lead to water barons potentially buying up several entitlements and creating a monopoly over water entitlements which would have an impact on price and perhaps service.

The premise underpinning water trading is that people will behave in an economically rational manner but this cannot be guaranteed. Further, what is economically rational in the short term may not be economically rational in the long term.

One way of dealing with the water baron phenomenon would be to develop a cap on how many water entitlements one person could acquire beyond special use arrangements or use for specific land. Such moves are presently being discussed in Victoria but in New South Wales the potential

¹⁰⁹ J. McKay & H. Bjornlund (2002) "Recent Australia Market Mechanisms as a Component of an Environmental Policy" in Land and Water Australia, *Property Rights and Responsibilities, Current Australian Thinking*, 137.

¹¹⁰ See Indoleft News Service produced by the 'Indonesian Centre for Reform and Social Emancipation and Action in Solidarity with Asia and the Pacific', JI TEbet Timur Dalam VIII, No. 6A, Jakarta, Selatan, 12820, Indonesia. For access to updates see <<http://groups.yahoo.com/group/asapnewsupdates>>. Site accessed 7.6.05.

problem is being dealt with differently. In New South Wales the view seems to be that the requiring of Ministerial consent for the trade of entitlements should be a sufficient mechanism to prevent the development of water barons. However, consent requirements are open to abuse and corruption at worse, and are the subject of intense lobbying at best. If the parties to a dispute over Ministerial consent do not have equal bargaining power it is possible that this control mechanism will not serve society well.

ii) Compensation

There is a strongly voiced view that if the new trading regime and, in particular, the new licensing system under the WMA causes some people to have to change their business activities because of reduced water allocations, for example, then those people should receive compensation. The issue is a difficult one. On one hand and through no fault of their own some people may be forced out of business by acts and policies of government. In order to maintain a stable economy and as a matter of social justice those people may need the support, offered through a compensation package so that they can retrain and re-build their lives and businesses. Yet on the other hand, it may be argued that many people regularly face business closure without the cushion of compensation. Often business closure can be the result of policy modifications or changes in community attitude, yet no compensation flows. Take for example the butcher whose business fails as a consequence of a government supported National Heart Foundation policy which encourages people to eat less red meat.

Whether compensation should be offered is itself arguable in the context of the water debate. If it is to be made available, the next difficult question to arise is that of how the loss caused by the new water regime should be valued. For example, should compensation be paid for the actual loss of water use at the time the rights are affected or should it be valued on the basis of the economic potential of those rights?

iii) Infrastructure

In many cases an inherent part of the trading concept involves water being transported from point A to point B. So if, for example, M buys X's water access licence from him/her and acquires a share of the available water as well as a right to extract that share of water, M may well wish to

use the water on his/her property; his/her property not being situated near the point at which M is able to access the water. Infrastructure is, therefore, needed to get M's water to the point where M needs it. If it is simply a case of M buying a water entitlement upstream from the land on which M wishes to use that entitlement, there will be far fewer difficulties than if M buys an entitlement for water that is to be used some distance away. In many cases hydraulic conveyances may be needed to transport water to M (water is heavy) but these are expensive to provide and need adequate funding. Without adequate funding for both the conveyance of water and the treatment of it, water trading will be severely impeded. Where that funding is to come from needs to be clearly established.

iv) *Increased water costs will result in less use*

Prof Peter Cullen,¹¹¹ among many others, believes that “a realistic price for water will determine how people use it.”¹¹² The view that “the cost of water must reflect its scarcity” has become more audible.¹¹³ In the rural sector the cost of access licences (and their component parts) will be determined by market forces but in urban areas water retailers (such as SydneyWater) will charge water end-users directly. The pricing structure used is determined by the Independent Pricing and Regulatory Tribunal (IPART) which announced a new pricing scheme for water in the Sydney metropolitan area and its environs, in 2005. The scheme only covers SydneyWater supplied water and is based on a two-tiered, inclining block approach which is designed to target discretionary water users.¹¹⁴ The actual price determinations announced by IPART involve increases in the cost of water in Sydney. Price control has, therefore, become a tool of water management. Whether there are sufficient inbuilt safeguards for the vulnerable members of society under such a scheme is as yet unknown. Such a scheme would need to factor into pricing the social and financial inequalities that affect society if it is to serve the community well.

Further, although efficiency and pricing are commonly linked, it may not necessarily be the case that, as a community, we wish to support efficient water use in all circumstances. It may not be

¹¹¹ Professor Peter Cullen is a member of the Wentworth Group.

¹¹² Quoted in A. Mansour & S. Johri (2004) *Water Management Legislation in NSW*, UNSW, Continuing Legal Education Paper, October, p. 9.

¹¹³ *Australian Financial Review* reporting on the Productivity Commission's Paper, 27 October, 2004.

¹¹⁴ Discretionary water use includes water for pools and car and paving cleaning etc.

our common goal to remove all inefficient users from the water market. To explain, perhaps social and cultural considerations will, in some circumstances, outweigh economic efficiencies. Hence we may, for example, wish to support the building of a community-based hydrotherapy pool for the victims of spinal injuries even though it may not be an economically efficient use of water.

v) *80% of water is held by Irrigation Corporations*

According to Doug Miell, CEO of the Irrigators' Council of NSW, 80% of water in New South Wales is held by 5 licence holders, who hold on behalf of share holders in Irrigation Corporations.¹¹⁵ As Irrigation Corporations are far more inclined to buy in water entitlements rather than trade them out, this means that realistically only 20% of New South Wales's water entitlements are on the market and can become part of the developing national water market. One has to wonder whether a market approach is capable of reforming water use and management when there is so little New South Wales input into it. Even if one accepted that water trading could reform water use and management to bring about the objectives specified in s 3 of the WMA, one wonders whether this would still be possible when the critical mass (of tradeable entitlements) is so reduced. Perhaps the position will change as the National Competition Policy takes effect and causes barriers to competition concerning Irrigation Corporations, to break down with resultant exits from the Corporations but at this stage that has not happened. At present the problem of the small amount of tradeable entitlements is exacerbated by another issue and that is that not all catchments have finalised their Water Sharing Plans. While the catchment does not have a Water Sharing Plan it is still governed by the 1912 legislation which has no provisions for trading in access licences. The sooner all catchments develop Water Sharing Plans and they are brought under the WMA 2000 the better, at least in terms of consistency and increasing the tradeable pool.

vi) *Off shore corporations holding entitlements over access to NSW water*

If commodification involves the possibility of water access entitlements being traded off-shore this may have implications for Australia in terms of service provision.

¹¹⁵ Statistics presented by Doug Miell, CEO, Irrigators' Council of NSW. Presentation given to LLM students, Faculty of Law, UNSW held at AGSM, Sydney, May, 2005, organised by J. Gray.

Ranald points out that as a signatory to the General Agreement on Trade Services (GATS) Australia is bound by changes to that agreement.¹¹⁶ She raises some potential concerns about any changes to GATS; concerns which revolve around the right of governments to regulate services and to remove barriers to international trade in environmental services. She also highlights some of the issues associated with defining all water services as commercially traded goods rather than as public traded goods. Ranald suggests that if Australia agreed to such changes those changes would be legally binding and could result in the undermining of our present safeguards which ensure equitable access and the affordable pricing of water services. Accordingly, we would need to consider how we would respond to access and pricing procedures being challenged by a transnational corporation which took the view that those restrictions were barriers to free trade.¹¹⁷

Conclusion

In conclusion, this paper offered a descriptive overview of the development of riverine water law in New South Wales, tracing its course from riparian rights through to commodification. The paper emphasised the different legal classifications of water entitlements and explained how and why these classifications were significant, particularly in the context of commodification. Finally, it raised a number of issues about whether the fundamental concept of commodification was necessarily beneficial and it highlighted some of the difficulties in implementing a scheme of water use and management based on trading. In particular, it was concerned with whether or not social justice initiatives and objectives could be satisfied adequately under a scheme which relied on the market to re-allocate a rare and increasingly valuable resource. Given that (a) markets are sometimes volatile and/or unpredictable and (b) the commodity itself (water) is one about which science cannot predict or estimate future volume, it would seem sensible to take a cautious approach to the market's ability to manage water. Even if it were conceded that the market could contribute to better allocations of the resource, it is perhaps helpful to keep in mind that it would be just that: a contribution. It is unlikely that the introduction of a (partial) national water market will alone be the panacea to the water problem in Australia, particularly given that so little water in New South Wales would, in a practical, sense be tradeable.

¹¹⁶ Oral presentation by P. Ranald, Principal Policy Officer, PIAC. Presentation at AGSM, Sydney, 19 May 2005, organised by J. Gray.

¹¹⁷ P Ranald (n.d.) 'Trading Away our Water Rights?' available at <<http://www.tear.org.au/resources/harambee/023/03-tradingourrights-pranald.htm>>

The issues raised in the conclusion of the paper deserve more attention. They raise, in part, concerns about distributive justice which go beyond mere economic efficiencies. Policy-framers and politicians would be well advised to incorporate such issues into any future planning for policy initiatives and/or legislation if water management is to achieve (a) the goals spelt out in the 1994 COAG Framework and the National Water Initiative and (b) simultaneously avoid the scars of economic rationalism. Such scars are arguably evident in the breakdown/decline of service and resource management seen by reference to the Cryptosporidium and Giardia crisis in Sydney in 1998.¹¹⁸

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¹¹⁸ In 1998 Cryptosporidium and Giardia were found in Sydney Water's water. They were probably traceable to the privately run Prospect Filtration Plant but it was not found liable because it had not contracted to filter out Cryptosporidium and Giardia.

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