Chapter 1: Introduction

In the past two decades there has been a number of government and academic enquiries into the potential use of the legal concept of a duty of care in statutes to encourage sustainable practices by farmers in their social roles as stewards of the land.[1] As a consequence, the duty of care has been adopted in a number of statutes dealing with environmental protection and natural resource management.[2] The reason for this interest in a duty of care is that it has traditionally proven useful for setting boundaries for appropriate behaviour within society: it basically applies community norms of responsibility to assist in resolving complex disputes between neighbours. It does this in an apparently flexible way, taking into account the particular circumstances of the case.

There is some precedent for use of duty of care in legislation. It has worked successfully, for example, in Corporations Law.[3] However, such instances of success do not mean that the introduction of a duty of care into natural resources legislation will be trouble free. The reasons for this are partly to do with the relative novelty of modern expectations regarding stewardship of natural resources, and partly to do with the particular nature of a duty of care.

Confusion about natural resources regulation and policy is a practical concern for farmers. It creates ambiguity, legal risk and expense. In this thesis I argue that the duty of care provides a recent example of regulation where the words used in statute create the potential for future conflict and confusion.

This thesis explores the problematic issues surrounding the introduction of a duty of care into natural resource legislation and how some of these problems might be addressed. At the heart of the problems is the tension created by differing understandings of the meaning of duty of care, and the functional complexity in the implementation of the duty of care within the societal context. Whereas

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1 Alex Gardner, 'The Duty of Care for Sustainable Land Management' (1998) 5(1) *The Australasian Journal of Natural Resources Law and Policy* 29; Industry Commission, 'A Full Repairing Lease. Inquiry into Ecologically Sustainable Land Management' (1998); Standing Committee on Environment and Heritage, Parliament of the Commonwealth of Australia, House of Representatives, *Coordinating Catchment Management Report of the inquiry into catchment management* (2000); Standing Committee on Environment and Heritage, Parliament of the Commonwealth of Australia, House of Representatives, *Public Good Conservation: Our challenge for the 21st Century. Interim report of the inquiry into effects upon landholders and farmers of public good conservation measures imposed by Australian Governments* (2001); Gerry Bates, 'A Duty of Care for the Protection of Biodiversity on Land' (2001); Department of Sustainability and Environment (Victoria), *Land and biodiversity at a time of climate change Green Paper* (2008); M Young, T Shi and J Crosthwaite, 'Duty of care; An instrument for increasing the effectiveness of catchment management' (Department of Sustainability and Environment, 2003)

2 Examples are in statutes from Queensland, South Australia, Victoria and Tasmania, discussed later in this chapter.

3 For statutory duties of company directors see *Corporations Act* 2001 (Cth). Sections 180 to 184 deal with general duties. These are: the duty to act with care and diligence, to act in good faith and for a proper purpose, not to improperly use position and not to improperly use information.

a common law duty of care is concerned with accepted norms of behaviour and minimum accountability within those norms, statute is more likely to be focused on ambitions of responsibility that aspire to the 'virtuous behaviour' of natural resource users. But the aspirations are complicated by the fact that what constitutes 'good' environmental behaviour is often disputed. The implementation of the two forms of 'duties' also differ; a common law duty of care is adjudicated through the court system, and the statutory duty of care for environmental protection is adjudicated through government administrative frameworks, but with a possible recourse to the courts for administrative law failings.

Given the often-unclear nature of what constitutes good environmental behaviour, recourse to the courts is likely to highlight problems in itself. Examining the potential problems arising from recourse to the courts, and how they might be avoided, forms a significant part of the research in this thesis.

The first part of this chapter discusses the traditional, common law duty of care and how it differs from a statutory duty of care. The second part outlines how various statutes in Australia have attempted to define duty of care. The discussion then outlines the different processes in the implementation of statutory and the common law duty of care.

The final part of this chapter states the propositions to be tested by the research conducted for this thesis, and to set the structural framework for reporting on the research outcomes.

The common law duty of care

The concept of a duty of care is a legal term with a long history of use in the common law through the tort of negligence. It obliges the holder of a duty to exercise reasonable care to avoid harms of the type to which the duty relates. Establishing the existence of a duty of care is a question of law about when an obligation exists to avoid behaviour that poses an unreasonable risk of harm to others.[4] Whether a duty exists can be determined by an opinion of the court or an act of parliament. A failure to undertake adequate precautions in circumstances where a duty is found to exist may result in liability for breach of the duty.[5] What this means is a question of fact about whether what happened was careless. Developing practical meaning for a duty of care requires consideration of:[6]

(i) foreseeability of harm

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4 John G Fleming, *The Law of Torts* (9th ed, 1998), 149.

5 Mark Lunney and Ken Oliphant, *Tort Law Text and Materials* (2nd ed, 2003).

6 Fleming, above n 4, 117. The approach is sometimes termed the 'Shirt calculus' since the leading Australian authority is *Wyong Shire Council v Shirt* (1980) 146 CLR 40. For a discussion of breach of duty see Francis Trindade, Peter Cane and Mark Lunney, *The Law of Torts in Australia* (2007), Chapter 8; Jane Stapleton, 'Duty of Care Factors: a Selection from the Judicial Menus' in Peter Cane and Jane Stapleton (eds), *The Law of Obligations: Essays in Celebration of John Fleming* (1998).

(ii) the circumstances in which harm arises
(iii) the objective standard of care relevant to the circumstances, determined after the fact, and
(iv) consideration of common practice

The actions of the individual who is said to have breached a duty of care are tested against these factors to determine if there is in fact a breach, and then whether a monetary compensation for losses to the plaintiff should be awarded. The right to sue is limited to the party who has suffered loss. Past civil law decisions guide the definition of 'reasonable care'. In this way the practical meaning for a duty of care is distilled through the common law and matched with current circumstances. This, by inference, guides future behaviour. The common law duty of care helps define boundaries of responsibility within society.[7] But, because it applies 'common practice', or accepted 'norms' for determining the boundaries, the obligations defined are not so detailed that their discharge becomes onerous. The concern of the court is to distil contemporary standards, not to force the adoption of higher standards upon society. Courts consider freedom of action as an overriding interest to be preserved in defining reasonable care.[8]

It is important to note that the common law of negligence does not impose obligations to act reasonably in respect to all kinds of harm. For example, the common law usually imposes an obligation to act reasonably to avoid inflicting physical harm or damage to another person or property. It does not impose a general duty in relation to what are known as 'purely economic' losses, and there are limits on when a duty to act, as opposed to imposing a duty when acting, will be imposed. The role of 'duty' in the common law limits when liability arises from careless behaviour, sometimes using public policy considerations to determine when, how and to whom a general duty ought apply. At times, these policy restrictions on duty mean that certain kinds of harm, or harm caused in a certain way, or by certain kinds of people, should not trigger liability even if caused negligently.[9]

The usual decision-making process within courts reflects the dominant property paradigm of freedom to exploit 'property' with minimal accountability. Civil duty of care, in essence, protects a limited range of interests, which are essentially private (eg health, property, money). It does not extend to what might be called 'public harms' unless such harms coincidentally correspond to private harms. It is a minimal standard, determining what conduct triggers compensation. It promotes

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7 Peter Cane, *Responsibility in Law and Morality* (2002) 181.

8 Fleming, above n 4.

9 There is academic controversy over the range and legitimacy of the limited or no duty situations. For a sample of competing views see Allan Beever, *Rediscovering the Law of Negligence* (2007); Robert Stevens, Torts and Rights (2009).

accountability and is not concerned with rewarding virtue. Implicit is the belief that 'property rights' are paramount for most purposes in many Western democracies, translated into a judicial expectation that exploitative interests will be protected other than where there is an unambiguous statement by Parliament of its intent to overturn this interest, and where legislation is (from both a legal principle and an evidentiary perspective) specific and reliable.

The common law, therefore, has a limited interest in determining whether other conduct might have been better in promoting some desired end. This is different to the situation where duties are defined within the context of 'command and control' regulation,[10] where the role of the legislature can be to create higher standards of behaviour by the application of punishments and incentives.

Much of the advocacy for a statutory duty of care proceeds from an expectation that it will promote ethical land management (a 'virtue' conception), institutionalising standards of conduct to be encouraged. In this expectation statutory environmental duties of care are conceptually different to those guiding common law practice, but are still phrased in terms of 'reasonableness', giving an appearance of similarity to common law duty of care. Such apparent similarity could become significant should courts be called upon to adjudicate the application of these statutes.

A statutory duty of care

A duty of care has been incorporated into land management statute in at least four Australian jurisdictions. These statutory versions illustrate two ways of expressing the duty of care; a brief form with the details imported by reference to a non-statutory code, or a detailed form fully expressed within the statute. Table 1.1 lists the legislation and form of expression of duty of care:

Table 1.1: Australian legislation incorporating a duty of care for the environment

Legislation	Source of duty	Expression of duty
Environmental Protection Act 1994 (Qld)	s.319 General Environmental Duty	The act provides a list of relevant factors to consider in working out what reasonable and practical measures means, (a) the nature of the harm or potential harm (b) the sensitivity of the receiving environment (c) the current state of technical knowledge for the activity (d) the likelihood of successful application of the different measures that might be taken, and (e) the financial implications of the different measures as they would relate to the type of activity.
Land Act 1994 (Qld)	s.199 Duty of Care Condition	A land lease/permit holder must take all reasonable steps to; (a) avoid causing or contributing to land salinity that (i) reduces its productivity, or (ii) damages any other land (b) conserve soil

[10] Tucker LJ in *Latimer v AEC Ltd* [1953] AC 643.

		(c) conserve water resources (d) protect riparian vegetation (e) maintain pastures dominated by perennial and productive species (f) maintain native grassland free of encroachment from woody vegetation (g) manage any declared pest (h) conserve biodiversity
Catchment and Land Protection Act 1994 (Vic)	s.20 General Duties of Land Owners	A land owner must take all reasonable steps to; (a) avoid causing or contributing to land degradation which causes or may cause damage to land of another land owner (b) conserve soil (c) protect water resources (d) eradicate regionally prohibited weeds (e) prevent the growth and spread of regionally controlled weeds, and (f) prevent the spread of, and as far as possible eradicate, established pest animals.
Natural Resources Management Act 2004 (SA)	s.9 General Statutory Duties and s.133 Specific Duty to a Watercourse	Meaning of the duty of care be interpreted by reference to a complex set of statutory provisions (see Table 1.2)
Environment Protection Act 1993 (SA)	s.25 General Environmental Duty	Meaning of the duty of care be interpreted by reference to a complex set of statutory provisions
River Murray Act 2003 (SA)	s.23 General Duty of Care	Meaning of the duty of care be interpreted by reference to a complex set of statutory provisions
Pastoral Land Management and Conservation Act 1989 (SA)	s.7 General Duty of Pastoral Lessees	The duty of a lessee is; (a) to carry out the enterprise under the lease in accordance with good land management practices, (b) to prevent degradation of the land, and (c) to endeavour, within the limits of financial resources, to improve the condition of the land.
Environmental Management and Pollution Control Act 1994 (Tas)	s.23A General Environmental Duty	Requires all practicable and reasonable measures be taken…having regard to all the circumstances of the conduct of the activity, including but not limited to: (a) the nature of the harm or nuisance or likely harm or nuisance; and (b) the sensitivity of the environment into which a pollutant is discharged, emitted or deposited; and (c) the current state of technical knowledge for the activity; and (d) the likelihood and degree of success in preventing or minimising the harm or nuisance of each of the measures that might be taken; and (e) the financial implications of taking each or those measures.
Forest Practices Act 1985 (Tas)	s.31(1)	Creates a code of practice to provide for reasonable protection of the environment

An example of the brief expression is the general environmental duty stated in the *Environmental Protection Act 1994* (Qld), which requires a person to take all reasonable and practical measures that

prevent or minimise environmental harm. The Act also allows an industry code of practice to define the detailed meaning.[11] A code has been prepared by the Queensland Farmers' Federation to detail how farmers can meet the duty of care. The Federation's code is centred on six 'expected environmental outcomes'. These are that all reasonable and practical measures should be taken within the constraints of a sustainable agricultural system to:[12]

1. Conserve representative samples of native species and ecosystems;
2. Conserve the productive characteristics and qualities of the land and its soil;
3. Conserve the integrity of waterways and the quality of water;
4. Manage waste from on-farm activities;
5. Conserve the quality of air through minimising the release of contaminants; and
6. Minimise the impact of noise on environmentally sensitive places at sensitive times.

The *Land Act* 1994 (Qld) provides another example of brief expression where a Crown Land lease, licence or permit holder has responsibility for a duty of care for the land.[13] A leaseholder who complies with a land management agreement is also said to be satisfying a duty of care.[14]

Another brief and general statutory statement about reasonable land management behaviour exists for all land owners in Victoria under the *Catchment and Land Protection Act 1994* (Vic);[15] Failure to comply with the duties stated in the Act is not an offence but may attract a land management notice.[16] Pastoral leaseholders in South Australia are similarly subject to a brief specification of the duty of care, where detailed meaning is specified in a land management plan for the property.[17]

Another illustration of the brief form is the statutory duty of care in Tasmania where the obligation is to prevent or minimise environmental harm or environmental nuisance.[18] A code of practice is used to specify the requirements for compliance.[19] The *Forest Practices Act* 1985 (Tas) creates a code of practice to provide for reasonable protection of the environment.[20] The code describes a

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11 Under s 436(3) compliance with an approved code of practice is taken to satisfy the duty of care.

12 Queensland Farmers' Federation, 'The Environmental Code of Practice for Agriculture' (1998). Such industry codes are approved by the Minister but do not represent regulations made under the Act.

13 *Land Act* 1994 (Qld), s.199(1) for the duty of care.

14 Queensland Government, *Delbessie Agreement*, *State Rural Leasehold Land Strategy* (December 2007).

15 *Catchment and Land Protection Act* 1994 (Vic), s 20.

16 *Catchment and Land Protection Act* 1994 (Vic), s 37.

17 *Pastoral Land Management and Conservation Act* 1989 (SA), s 7.

18 *Environmental Management and Pollution Control Act* 1994 (Tas), s 23A(1).

19 *Environmental Management and Pollution Control Act* 1994 (Tas), s 23(4).

20 *Forest Practices Act* 1985 (Tas), s 31(1).

landowner's duty of care for the conservation of natural and cultural values, including measures detailed to protect soil and water values and preserve other significant natural and cultural values.[21]

Although such guidelines exist, they do not determine what is 'reasonable': the detailed meaning of which may be disputed politically or in court, particularly as it seeks to supplant the implicit moral obligation connoted by the statutory duty with a series of technical procedures. For example, technical guidance about a landowner's duty of care under the Tasmanian Forest Practices Code is extensive for forest access, timber harvesting, conservation, and management practices. It does however leave substantial discretion about how these practices will be implemented and remains silent on identifying for whom and what the forest manager ought to be accountable (including specific legal obligations to the environment under other Tasmanian or Commonwealth legislation).

An alternate model for detailed statutory expression of the duty of care exists in legislation from South Australia. The three laws listed in Table 1.1 require that meaning of the duty of care be interpreted by reference to a complex set of statutory provisions. For example, the *Natural Resources Management Act* 2004 (SA) contains a general duty to act reasonably in relation to the management of natural resources.[22] What this means is determined by reference to factors to achieve: ecologically sustainable development,[23] reasonable measures and the statutory objects. The details regarding these factors are reproduced in Table 1.2.

Table 1.2: Complex statutory factors relevant to determining reasonable behaviour in *Natural Resources Management Act* 2004 (SA)

Achieving reasonable measures [24]	Objects of the Act [25]
(a) the need to act responsibly in relation to the management of natural resources, and the potential impact of a failure to comply with the relevant duty (b) any environmental, social, economic or practical implications, including any relevant assessment of costs and benefits associated with a particular course of action, the financial implications of various measures or options, and the current state of technical and scientific knowledge	Promote ecologically sustainable development and use and management of natural resources that; (a) recognises and protects the intrinsic values of natural resources (b) seeks to protect biological diversity and, insofar as is reasonably practicable, to support and encourage the restoration or rehabilitation of ecological systems and processes that have been lost or degraded (c) provides for the protection and management of catchments and the sustainable use of land and water resources and, insofar as is reasonably practicable, seeks

21 Forest Practices Board, 'Forest Practices Code' (2000) 52.

22 *Natural Resources Management Act* 2004 (SA), See s 9(1).

23 *Natural Resources Management Act* 2004 (SA). See s 7(2). Ecologically sustainable development is the use, conservation, development and enhancement of natural resources in a way, and at a rate, that will enable people and communities to provide for their economic, social and physical well being while;
(a) sustaining the potential of natural resources to meet the reasonably foreseeable needs of future generations,
(b) safeguarding the life supporting capacities of natural resources, and
(c) avoiding, remedying or mitigating any adverse effects of activities on natural resources.

24 *Natural Resources Management Act* 2004 (SA). See s 9(2).

25 *Natural Resources Management Act* 2004 (SA). See s 7(1).

(c) any degrees of risk that may be involved (d) the nature, extent and duration of any harm (e) the extent to which a person is responsible for the management of the natural resources (f) the significance of the natural resources, including in relation to the environment and to the economy of the state (if relevant) (g) the extent to which an act or activity may have a cumulative effect on any natural resources (h) any pre-existing circumstance, and the state or condition of the natural resources.	to enhance and restore or rehabilitate land and water resources that have been degraded, and (d) seeks to support sustainable primary and other economic production systems with particular reference to the value of agriculture and mining activities to the economy of the state, and (e) provides for the prevention or control of impacts caused by pest species of animals and plants that may have an adverse effect on the environment, primary production or the community. and (f) Promotes educational initiatives and provides support mechanisms to increase the capacity of people to be involved in the management of natural resources.

Table 1.2 (continued); Factors relevant to achieving ecologically sustainable development [26]

(a) decision-making processes should effectively integrate both long term and short term economic, environmental, social and equity considerations

(b) if there are threats of serious irreversible damage to natural resources, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation

(c) decision-making processes should be guided by the need to evaluate carefully the risks of any situation or proposal that may adversely affect the environment and to avoid, wherever practicable, causing any serious or irreversible damage to the environment

(d) the present generation should ensure that the health, diversity and productivity of the natural environment is maintained or enhanced for the benefit of future generations

(e) a consideration should be the conservation of biological diversity and ecological integrity

(f) environmental factors should be taken into account when valuing or assessing assets or services, costs associated with protecting or restoring the natural environment should be allocated or shared equitably and in a manner that encourages the responsible use of natural resources, and people who obtain benefits from the natural environment, or who adversely affect or consume natural resources, should bear an appropriate share of the costs that flow from their activities

(g) if the management of natural resources requires the taking of remedial action, the first step should, insofar as is reasonably practicable and appropriate, be to encourage those responsible to take such action before resorting to more formal processes and procedures

(h) consideration should be given to Aboriginal heritage, and to the interests of the traditional owners of any land or other natural resources

(i) consideration should be given to other heritage issues, and to the interests of the community in relation to conserving heritage items and places

(j) the involvement of the public in providing information and contributing to processes that improve decision-making should be encouraged

(k) the responsibility to achieve ecologically sustainable development should be seen as a shared responsibility between the public sector, the private sector, and the community more generally

(l) the local government sector is to be recognised as a key participant in natural resource management, especially on account of its close connections to the community and its role in regional and local planning.

Detailed guidelines in statutes provide greater completeness in the legislation, but inevitably use generic words and concepts, such as 'ecologically sustainable management', to define reasonable behaviour. While the use of such terms is necessary, because they are intrinsic to care of the land, they often have multiple interpretations. This increases the practical complexity of definition for the duty holder.

[26] *Natural Resources Management Act* 2004 (SA), see s 7(3).

Administrative Enforcement of the New Statutory Duties

The statutory duties of care identified above result from parliamentary inquiry recommendations that have drawn on the common law duty of care, but have not critically questioned the function and meaning of such duty in the new context of environmental law.[27] Statutory versions of the duty of care focus on creating boundaries of responsibility that are adjudicated through an administrative process, illustrated in Figure 1.1. Such a focus places a duty of care at the centre of natural resource stewardship (a virtue conceptualisation).[28]

Administration of the statutory duties of care usually involves issuing an order or notice for which non-compliance is an offence. A third party may also be authorised to act to remedy the breach. Costs are then recovered or court orders issued.

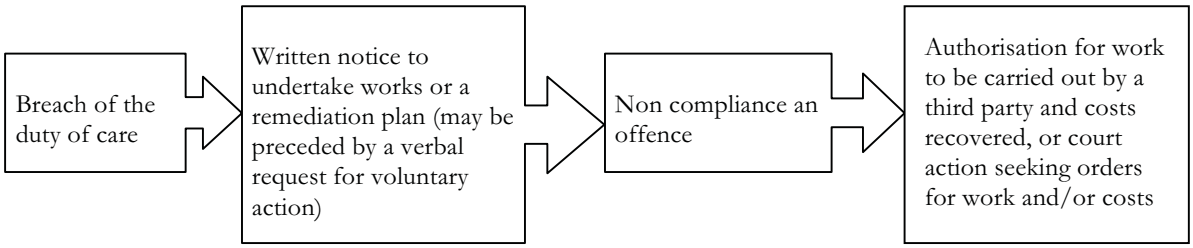

Figure 1.1: Generic compliance process for a statutory duty of care

A key feature of the approach in Figure 1.1 is enforcement by a local body (such as a catchment authority or a natural resource management board) with the relevant knowledge of standards concerning natural resource management and environmental protection. Such standards are usually embodied in a catchment or regional plan. Although different states have taken different approaches, the consequences of an administrative determination that a breach has occurred are similar, and potentially economically significant. They can be an order that involves additional costs, possible prosecution for non-compliance, or loss of a leasehold interest. For example:

- Causing environmental harm is unlawful in Queensland under the *Environmental Protection Act* 1994 but it is accepted that a defendant has complied with the general duty of care if an

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27 Standing Committee on Environment and Heritage (2001), above n 1, see recommendation 5. Industry Commission, above n 1, see recommendations 8.1 and 8.2.

28 Gardner, above n 1, 63.

approved code of practice was followed.[29] In Queensland, a breach of the duty of care by a lessee of Crown land may attract a remedial notice.[30]

- A land management notice issued under the *Catchment and Land Protection Act* 1994 in Victoria may make prohibitions with respect to land use or management, or specify actions to be taken. Failure to comply with the notice is an offence under s.41 of the Act. [31]
- In South Australia, failure to resolve a breach of the duty under the *Natural Resource Management Act* 2004 by negotiation and voluntary action may result in a notice to prepare an action plan.[32] Failure to comply with a notice is an offence.[33] A breach of the duty may also be remedied through an order or authorisation.[34] Failure to comply with these may result in a court order for non-compliance.
- Under the *River Murray Act* 2003, compliance with the duty of care may be enforced by an order or authorisation.[35] Failure to comply is an offence.
- Breach of a pastoral lessee's duty in South Australia is enforced by a notice to prepare a property plan addressing the issues. Failure to comply may result in a plan being prepared by the pastoral board and failure to implement a plan is a breach of lease conditions.[36] A breach of a lease may result in lease termination and/or civil action for damages.
- The general environmental duty in South Australia is enforced through an environmental protection order, clean up order or authorisation.[37] Failure to comply is an offence and may result in orders being issued by the court.[38] Failure to follow court orders may constitute contempt.
- In Tasmania, the code of practice and its duty (under the *Forest Practices Act* 1985) is enforced initially by a request for voluntary action. Failure to act on this triggers a regulatory compliance

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29 *Environmental Protection Act* 1994 (Qld), see s 423. For farming, this is provided by Queensland Farmers' Federation, above n 13.

30 *Land Act* 1994 (Qld).

31 *Catchment and Land Protection Act* 1994 (Vic), see s 234(b).

32 *Natural Resources Management Act* 2004 (SA), see s 122.

33 *Natural Resources Management Act* 2004 (SA), see s 123(12).

34 *Natural Resources Management Act* 2004 (SA), see s 193 for protection orders, s 195 for reparation orders, s 197 for reparation authorisations.

35 *River Murray Act* 2003 (SA), see s 24 for protection orders, s 26 for reparation orders and s 28 for reparation authorisations.

36 *Pastoral Land Management and Conservation Act* 1989 (SA), see s 41(1), s 41(5) and s 41(10) regarding preparation of a property plan. The cancellation of a lease for breach of conditions occurs under s 37.

37 *Environment Protection Act* 1993 (SA), see s 93 and s 94 for protection orders, s 99 for clean up orders and s 100 for clean-up authorisations.

38 *Environment Protection Act* 1993 (SA), see s 104 civil remedies.

process commencing with a notice. Failure to comply is an offence.[39] A third party may then be authorised to carry out required works and the costs recovered from the offending landholder.[40]

Judicial interpretation of a statutory duty of care

Whether the duty is given brief or detailed expression in statute the fundamental purpose is the same. The essential characteristic (and arguably the appeal) of a civil duty of care process is its capacity to move the boundary of responsibility beyond statute into the field of unwritten social obligations. Duty of care moves legal responsibility for the environment towards the sphere of un-stated (but often contested) social expectations. The common law has evolved a sophisticated reasoning process for defining boundaries and forming social norms. This role of interpreting community mores and giving them legal effect if parliament has not specified them in statute has, traditionally, been the role of the court. Given the evolving nature of what environmental care means, the courts may be called upon to make interpretations of statutory duty.

There are two ways court interpretation may arise. First is for litigation to arise over the interpretation of reasonable care if a breach of the statutory environmental duty of care leads to harm in the form of damage to property.[41] A right of action in this form exists in South Australia and Tasmania.[42] For such actions, the courts would be required to consider the existence, content and satisfaction of the duty of care to minimise or prevent environmental harm. This is likely to replicate a common law interpretation of meaning.[43] A second path to a court determination of the meaning and application of a statutory duty of care would be through appeals against the determinations of administrative bodies that enforce the duty of care. The potential for this type of appeal arises because administrative application of the environmental duty of care could impact private proprietary interests.

A statutory duty of care could face a similar judicial review process as has occurred with the statutory precautionary principle (also applied through administrative law). The legal history of the precautionary principle illustrates the potential for administrative policy pronouncements to require

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39 *Forest Practices Act* 1985 (Tas), A notice is issued under s 41(2) and non-compliance with the notice is an offence under s 41(5).

40 *Forest Practices Act* 1985 (Tas) Authorisations are issued under s.41 (6) and costs may be recovered under s.41(7).

41 Mark Lunney and Robert Burrell, 'A farmer's choice? Legal liability of farmers growing crops' (2006).

42 *Environment Protection Act* 1993 (SA), see s 104; and *Environmental Management and Pollution Control Act* 1994 (Tas), see s 48(5). Also note that s 219 of the *Protection of the Environment Operations Act* 1997 (NSW) allows a person to commence action for an offence against the Act with leave, and s 246 allows damages to be paid to a person who suffers loss or damage upon the offence being established.

43 Luney and Burrell, above n 42.

detailed refinement and interpretation through the courts.[44] The statutory precautionary principle for decision-making about environmental impacts has been subject to detailed judicial interpretation. Notwithstanding the apparent impediment of the *Wednesbury* decision,[45] Talbot J suggested a wide scope for review of administrative decisions involving the precautionary principle on the basis that its statutory form expressed political aspiration with the potential for "interminable forensic argument" in its application as a legal standard.[46] Subsequent debate about what the principle demands of a decision making process has resulted in a detailed judicial interpretation.[47] It is not unreasonable to expect that the statutory duty of care may experience a similar future, with administrative decisions tested through appeals or other litigation.

As will be demonstrated with the moot court experiment described later in the thesis, in the absence of more definitive guidance, judges are likely to draw on the precedent of the common law duty of care as defining the process for establishing boundaries of responsibility and interpreting norms of behaviour. Attempts to reconcile the common law with the statutory environmental duty of care will bring multiple interpretations of an environmental duty of care into sharp focus. The cases on the interpretation of the precautionary principle illustrate that a process of administration that tries to exclude the courts is unlikely to be effective in doing so when the decisions have significant economic and political impacts.[48]

Propositions

In essence, this thesis explores the extent to which political or stakeholder expectations of a duty of care might be acted out in the legal system and the issues that might arise during the course of this implementation. The three propositions structuring the research in this thesis are:

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44 Such as occurred in the interpretation of the precautionary principle in the granting of forestry licenses, emissions permits (*Greenpeace Australia Ltd v Redbank Power Co Pty Ltd* (1994) 86 LGERA 143); property development approvals (*Brooks Lark & Carrick v Clarence City Council* [1997] TASRMPAT 61 (2 April 1997); fisheries management (*Bannister Quest Pty Ltd v Australian Fisheries Management Authority* [1997] FCA 819 (14 August 1997); and criminal liability for pollution (*Mclennan v Holden Ltd* [1999] SAERDC 83 No ERD-99-171 Judgement No OE83 (18 October 1999).

45 *Associated Provincial Picture Houses v Wednesbury Corporation* (1948) 1 KB 223, where it was found that the role of a reviewing body in administrative review is simply to decide whether the decision was so unreasonable that no reasonable decision maker could have made it. This would apparently limit the role that judicial administrative review would have in defining the content of a duty of care.

46 *Nicholls v Director General National Parks and Wildlife Service* (1994) 84 LGERA 397.

47 Culminating in a detailed interpretation of what it means to apply the statutory precautionary principle, in *Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133 (24 March 2006), from para. 126.

48 For a detailed discussion of early cases concerned with the precautionary principle and the judicial treatment of similar sustainability enactments, see Paul Martin and Miriam Verbeek, 'Cartography for Environmental Law. Finding new paths to effective resource use regulation' (2000) 76-88.

Research Proposition 1

There are competing meanings for the duty of care and what it can be expected to achieve. This arises because there is an unresolved debate about what norms for environmental responsibility should be.

Research Proposition 2

Incorporating a duty of care into statute conceals the unresolved contest of competing meanings. Alternative interpretations are likely to be contested in any legal dispute as they would result in materially different outcomes.

Research Proposition 3

With contested definition, the common law approach to interpretation of duty of care is likely to be used in disputes. This will lead to a refinement of meaning, which must fail to satisfy some of the competing expectations.

Thesis structure

Scope of the research

The thesis is not intended to be a study of negligence or common law theory, but rather to explore practical issues surrounding implementation of statutes containing a duty of care, and potential consequences of their implementation. The research does not explore in-depth legal technicalities such as jurisdiction or standing, though such matters will be important in the application of statute, and they are relevant in the design of the moot court experiment (discussed in Chapter 4).

The research was partly funded by the Cooperative Research Centre for Irrigation Futures and the University of New England. As a result, the focus of the research is on rural implementation of the environmental duty of care, particularly related to irrigation farming. The focus shaped the selection of the stakeholder interview sample, and the scenarios that were explored in the experiment. This emphasis is in part justifiable by the nature of the legislation itself, as its focus and application is on natural resources and environmental protection automatically affects the farm sector. Observations made about effectiveness of a statutory duty of care are likely to have broader application (as is discussed in the concluding chapter) but this is not empirically explored in the thesis.

The method for this research is described in greater detail in the relevant chapters, as indicated in the overview of chapters below. The overall approach involved:

(i) Literature review principally to identify the responsibilities associated with farmers' natural resource management and the way in which a duty of care for the environment has been promoted as a way to define such responsibilities. This also identifies complexities associated with defining farms' responsibilities using a duty of care.

(ii) Interviews with a variety of stakeholders. The interviews were principally intended to build upon the literature review, deepening understanding of expectations and likely practical considerations in the implementation of this legal duty.

(iii) An experimental moot court. This was intended to provide deeper insights into how the legal system and its practitioners are likely to deal in practice with the issues identified from the literature and interviews.

Overview of content in chapters

Chapter 1 provides the context of the thesis, the propositions and structure of the research. It highlights the nature of the tension between common law and statutory duty of care for the environment, and the practical implications of this tension.

Chapter 2 discusses the literature review and provides the foundation for proposition 1. The literature shows that there are indeed multiple interpretations of a duty of care and expectations about what it can achieve. In addition, the literature describes a fundamental tension between a belief in the private rights of farmers to exploit and their public 'duties' as natural resource managers (stewardship role).

Chapter 3 details the method and outcomes of interviews of a range of stakeholders, providing further evidence for proposition 1 and evidence for proposition 2. Overall, the interviews show a range of expectations associated with farming, a duty of care and stewardship of natural resources. Stakeholders interviewed were: farmers, government representatives, lawyers and political lobbyists concerned with farming and conservation. The range of expectations identified from interviews highlight the complexity of trying to apply a statutory duty of care and further reveal the disjuncture between the common law legal expectation of minimum accountability and the statutory expectation reflecting concepts of virtue.

Chapter 4 describes an experiment to explore the potential impacts of the unresolved tensions within the statutory duty of care for the environment as noted in Chapters 2 and 3. The experiment, a moot court, tests how a hypothetical statutory duty of care in respect to farmers' natural resource management might be applied in a court. Specifically, it tested the propositions that:

Research Moot Proposition 3.1

Legislation alone cannot define a duty of care for natural resource management by farmers to a level that would be necessary to resolve a legal dispute.

Research Moot Proposition 3.2

The common law will have to be used to provide detailed interpretation of the meaning in this context, to provide sufficient additional interpretative support to apply the statutory duty.

Research Moot Proposition 3.3

A statutory duty of care for natural resource management by farmers in the current form is not likely to effectively achieve some of the desired objectives of more sustainable land use.

The results of the experiment support these three propositions.

Chapter 5 discusses the findings of the research and its limitations, as well as possible future research streams that could be undertaken as a result of, particularly, the moot.

Also included, in Appendix 1, are two peer-reviewed articles that have been published and one peer reviewed book chapter (to be published in 2010). These are directly relevant to the research undertaken within the context of this thesis. They demonstrate the academic and practical implications of this research.

Chapter 2: Literature Review - Farmers Responsibility for Natural Resources

Duty of care has been incorporated into some natural resource statutes in the belief that it will provide an effective tool for advancing farmers' sustainable use of natural resources. This broad ambition, however, conceals different expectations about what is meant by duty of care and what it can achieve. The expectations range from legally requiring the virtuous behaviour of farmers (achievement of which may deserve to be rewarded, perhaps by improved access to resources), to expectations of continuing minimal accountability (non-achievement of which may justify punishment, perhaps by denial of access).

This chapter begins with a discussion of the nature of environmental responsibility in relation to farmers and how the changing nature of that responsibility is at the heart of understanding the emergence of statutory duty of care in natural resource regulations. There is a fundamental question of whether a statutory duty of care is intended to enforce a minimum level of performance or require virtuous behaviour that takes into account wider expectations about public responsibility. Both conceptualisations are present in advocacy of a farmer's legal duty of care for the environment.

The first part of the chapter deals substantially with the second part of Proposition 1; *(That competing meanings arise) because there is an unresolved debate about what norms for environmental protection should be*. The second part of this chapter explores the different interpretations of principles and standards underlying a statutory duty of care and how these impact on its application. This deals with part 1 of Proposition 1: *There are competing meanings for the duty of care and what it can be expected to achieve*; and Proposition 2: *Incorporating a duty of care into statute conceals the debate about the competing meanings*.

Finally, the chapter discusses the implications of the unresolved conflict over the apportionment of cost and benefit between farmers and society embedded within the term duty of care.

Rights of access and use (property rights)

Property is about the rules governing access to and control of resources. It exists as a relationship between people (the giver and receiver of the access right).[49] The relationship may be formally specified by rules governing access and use. These rules include limits upon a property owner's

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[49] Mark Stallworthy, *Sustainability, land use and environment a legal analysis* (2002) 77-78.

freedom to exploit. The process of defining these bounds represents a framework through which ecologically and socially feasible behavioural norms are developed.[50] However there is a range of competing views about what the bounds should be, making it difficult to reach a consensus of norms about farmers' responsibility to the environment.[51]

Benefiting from property requires that the community as a whole supports, and defends, an owner's 'right' to exploitation. For communities to invest in support and defence, they must feel comfortable that property owners will provide something beneficial to the community in return. That is, there must be a form of consensus about responsibility from and to the community.[52]

Where the community is dissatisfied with the bargain, it can either take away the 'right' or impose constraints through statutes, or it can apply force or sanctions to ensure that the collective interest is not ignored.[53] It is normal for property rights to be subject to constraint. Land zoning, natural resource management legislation, and industry or supply chain codes of practice are all partly expressions of the social consensus about responsibility. It is also a reality that the 'boundary' between public and private interests is often implicit and it is not fixed across time.

The dominant paradigm in Australia has been that farmer responsibilities for management performance are a mixture of accountability created by specific laws and obligations to neighbours not to infringe their exploitative property right. This is a minimum form of accountability,[54] an obligation to comply with the statutory and common law. Property is considered a largely un-attenuated right to exploit, with constraints imposed only where Parliament specifically makes clear this purpose or where exploitation may unjustifiably interfere with the interests of another property owner (or the physical well being of other people). Its emphasis is on minimum accountability for environmental protection with farmers' freedom to exploit their property rights paramount.[55] Within this traditional paradigm, the common law process for specifying reasonable care supports that freedom by specifying a level of accountability that is less onerous than the responsibilities that may be implicit in virtue-based expectations of the responsibility.[56]

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50 Maarten A Hajer, *The Politics of Environmental Discourse. Ecological Modernization and the Policy Process* (1995), 294.

51 Department of Sustainability and Environment, above n 1.

52 Paul Martin and Miriam Verbeek, 'Property Rights and Property Responsibility' in *Property: Rights and Responsibilities* (2002) 1.

53 Stallworthy, above n 50, 79; see generally: Sean Coyle and Karen Morrow, *Philosophical foundations of environmental law, property, rights and nature* (2004); Murray Raff, 'Toward an Ecologically Sustainable Property Concept' in Elizabeth Cooke (ed), *Modern Studies in Property Law* (2005).

54 Mark Bovins, *The Quest for Responsibility. Accountability and Citizenship in Complex Organisations.* (1998).

55 Fleming, above n 4, see page 9.

56 Tucker LJ in *Latimer v AEC Ltd* [1953] AC 643.

Recent inclusions of 'duty of care' into statutes dealing with natural resources, suggest a re-defining of farmers' boundaries of responsibility.[57] A statutory duty of care seeks to import concepts of ethical responsibility or 'virtue' into farmers' responsibilities.[58] They implicitly define farmers as stewards of natural resources as part of new formal legal requirements. People have a right to know what such legal requirements do and do not allow, in a way that is clearly pre-stated,[59] yet stewardship requirements arguably reflect a change to the conditions of a farmers 'social licence' that is far from clear.

Social licence

A social licence is about satisfying social expectations [60] that go beyond the formal legal framework. The concept of a 'social licence' highlights that ownership of a legal right to resources does not guarantee community support for the exercise of that right. Rather the maintenance of a social licence depends on elements of law, beliefs, relationships, administration and expectations.[61] Many aspects are inherently political, and not necessarily 'logical' from the point of view of a farmer. The actual exploitative interest of the farmer can be a result of both well-defined property rights and poorly defined social expectations acted out in the form of restriction or expansion of the social licence to use that property. What constitutes a social licence can be difficult to specify [62] because social expectations cover a diversity of concerns about economic, political, ecological, social and

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57 These statutory versions are those identified in Chapter 1, above, from Queensland, South Australia, Tasmania and Victoria.

58 As evidenced by the language of stewardship associated with a duty of care for example, see Queensland, *Parliamentary Debates*, Legislative Assembly, 9 September 1994, 9535-9538 (M.J. Robson, Minister for Environment and Heritage) 9537; Queensland Government, above n 15, 3 & 5; Department of Sustainability and Environment, above n 52, Chapter 5.

59 'People have a right to know what the law is, what it allows and what it does not allow in a way that is clearly pre stated rather than retrospective': Doreen McBarnet and Christopher Whelan, 'The Elusive Spirit of the Law: Formalism and the Struggle for Legal Control' (1991) 54(6) *The Modern Law Review*, 857.

60 Neil Gunningham, Robert A Kagan and Dorothy Thornton, 'Social Licence and Environmental Protection' (2002); Gary Lynch-Wood and David Williamson, 'The Social Licence as a Form of Regulation for Small and Medium Enterprises' (2007) 34(3) *Journal of Law and Society* 321.

61 Phil Hone and Iain Fraser, 'Extending the Duty of Care: Resource Management and Liability' (2004); K Lyons and K Davies, 'The Need to Consider the Administration of Property Rights and Restrictions Before Creating Them' in Alex Smajgl and Silva Larson (eds), *Sustainable Resource Use: Institutional Dynamics and Economics* (2007); Andrew Macintosh and Richard Denniss, 'Property Rights and the Environment: Should farmers have a right to compensation?' (The Australia Institute, 2004); National Farmers' Federation, 'Policy on Sustainable Production, Land and Native Vegetation.' (National Farmers' Federation, 2004); Murray Raff, *Private property and environmental responsibility. A comparative study of German real property law* (2003); Hon. S Robertson, 'Property rights, responsibility and reason' (Speech delivered by the Minister for Natural Resources and Mines, 8 April 2003); Clare Shine, 'Using Tax Incentives to Conserve and Enhance Biological and Landscape Diversity in Europe' (10, United Nations Environment Program, 2004); Peter Spencer, *Australian Sustainable Farming for the 21st Century: Ecosystem Services Protocol* (2005) <http://www.sosnews.org/peterspencer/> at 5 July 2008; WWF, 'Native Vegetation Regulation: Financial impact and policy issues.' (2005); Phillip Hone and Iain Fraser, 'Resource Management and Duty of Care' (2004) 11(3) *Agenda* 195; Raff, above n 54.

62 Bridget M Hutter, 'The role of non-state actors in regulation' (2006).

cultural consequences.[63] The issues underlying social licence are often expressed vaguely and, for issues concerning farmers, are couched as arguments about environmental stewardship and ecologically sustainable development.[64] They do not provide precise practical guidance, are not constrained by legal rights or obligations and do not necessarily respect private ownership.[65]

For example, a water entitlement as a form of property, involves two rights: one is the (tradable) licence to extract some percentage of the available water, with availability being administratively determined; the second is the use right (usufruct) once that water is available. The volumes and conditions for beneficial use of water are continuously adjusted through mixed political, legal and administrative processes, including negotiation of water sharing plans and decisions about annual water allocations, the development of laws to determine the priority of water access, and public investment in water infrastructure. Such processes determine the conditions for trading, use and the availability of water. Adjustments do occur with limited regard to the apparent security (or property right) that a tradable entitlement to water suggests.

Even more dramatic examples of the withdrawal of social licence are when communities punish actions that are legal but violate community expectations (even if the community expectations are changing ones), such as with the recent conflict about mulesing.[66] In that instance, farmers found themselves facing a loss of local and international markets because consumers were convinced that particular sheep husbandry practices were cruel. Regardless of legality, in order to regain the confidence of consumers, farmers have had to change their practices. Here the social licence to farm was powerfully demonstrated through buyers' power to withhold access to consumer dollars.

Changing responsibilities

The concept of 'stewardship' – the guardian of place, holding a position of responsibility[67] – has become important in modern conceptions of natural resource use and has been adopted in policies

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63 E M Epstein, 'The corporate social policy process: Beyond business ethics, corporate social responsibility and, corporate social responsiveness.' (1987) XXIX(3) *California Management Review* 99.

64 Alison Warhurst, 'Future roles of business in society. The expanding boundaries of corporate responsibility and a compelling case for partnership.' (2005) 37 *Futures* 151; Jenifer McKay, 'Issues for CEO's of water utilities with implementation of Australia's water laws.' (2006) 135 *Journal of Contemporary Water Research and Education* 115.

65 Lynch-Wood and Williamson, above n 61.

66 For more information about the mulesing debate, see: PETA, *Australian Wool Farmers 'Strike' Again* (2007) The PETA Files Australian Wool Archive <http://blog.peta.org/archives/australian_wool> Accessed 4 December 2009; Australian Wool Innovation, *Flystrike Prevention in Australian Sheep* (nd) Australian Wool Innovation Limited <www.wool.com/Grow_Animal-health_Flystrike-prevention.htm> Accessed 4 December 2009; Daniel Lewis, *Mulesing saves sheep from blowfly strike but is often seen as cruel* (2007) from Sydney Morning Herald 22 March 2007. Available at Australian Woolgrowers <www.australian wool growers.com.au/news2007/news220307.html> Accessed 4 December 2009.

67 Judy Pearsall and Bill Trumble (eds), *Oxford English Reference Dictionary* (2nd revised ed, 2001).

that advocate farmer responsibility for sustainable natural resource management.[68] In relation to farming, the core duties of stewards are conservation to keep resources for posterity and protection to save resources from harm.[69] Such responsibility is said by critics to be lacking in modern agricultural production systems.[70] Instead, industrial agriculture has been blamed for causing environmental decay.[71] What is being advocated is good environmental practices in which farmers do not deplete resources as part of their obligation to future generations.[72] Stewardship provides a conception of prudent or right behaviour to limit or reverse environmental harm.[73] Prudence is about ends: how to make important choices using a mixture of foresight, morals and self understanding; in effect a demonstration of virtue.[74]

The discourse of stewardship seeks constraints on exploitation in the public interest. This paradigm anticipates the statutory duty of care as an effective way to define stewardship responsibilities. Stewardship acts to limit the exploitive freedom implicit in property rights. It helps form norms of conservation practice, and protects legitimacy and social trust in return for environmentally benign farming practice.[75] It is a virtuous conception of performance supportive of social licence and characterised by higher conservation standards.

Figure 2.1 illustrates how this distinction between minimum accountability and virtue creates a tension between what political advocates expect a duty of care to mean and the meaning a legal boundary setting process will likely deliver.

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68 Sir Don Curry, 'Farming & Food. A Sustainable Future.' (The Policy Commission on Farming and Food, 2002), see page 9; Richard Barnes, *Property Rights and Natural Resources,* Studies in International Law (2009); Anna Carr, *Grass Roots and Green Tape-Principles and Practices of Environmental Stewardship.* (2002), 15.

69 Barnes, ibid 156.

70 D Baldock et al, 'Growing Greener. Sustainable Agriculture in the UK' (1996).

71 Curry, above n 69; Chris Cocklin, 'Natural Capital and the Sustainability of Rural Communities' in Chris Cocklin and Jacqui Dibden (eds), *Sustainability and Change in Rural Australia* (2005); Ticky Fullerton, *Watershed. Deciding our Water Future. Juggling the Interests of Farmers, Politicians, Big Business, Ordinary People and Nature.* (2001); Brian Roberts, *The Quest for Sustainable Agriculture and Land Use* (1995); Bob Beale and Peter Fray, *The Vanishing Continent. Australia's Degraded Environment* (1990).

72 United Kingdom, Royal Commission on Environmental Pollution, *Sustainable Use of Soil* (1996), see page 22.

73 Maria Lee, *EU Environmental Law: Challenges, Change and Decision-Making,* Modern Studies in European Law (2005) See page 207.

74 See Bernard E Jacob, 'Ancient Rhetoric, Modern Legal Thought, and Politics: A Review Essay on the Translation of Viehweg's "Topics and Law"' (1995) 89 *Northwestern University Law Review.*

75 These dimensions are reviewed in detail below in relation to their impact on defining natural resource access and use rights for farmers.

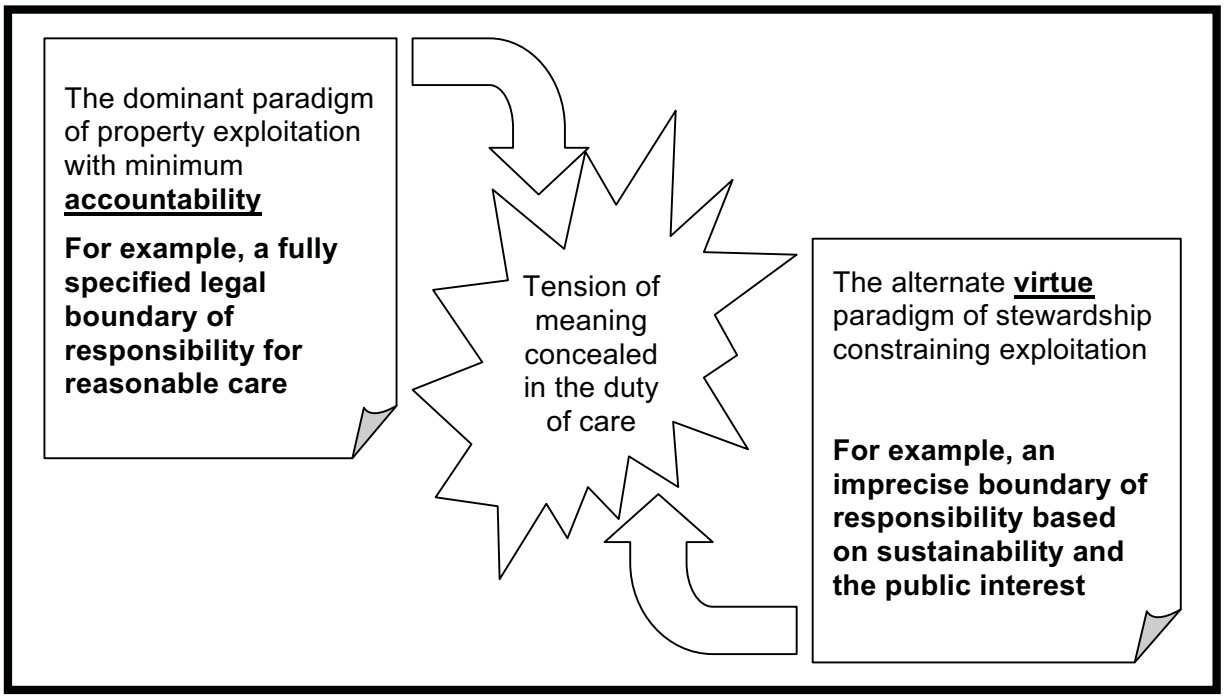

Figure 2.1: Tension between competing expectations for the duty of care

At a practical level, a failure to resolve the tension leads to a plethora of interpretations about the meaning of duty of care. The term hides competing expectations about the role that a duty of care can play in defining legally enforceable boundaries of responsibility for farmers. The tensions masked by the term 'duty of care' and its application are brought into focus when its practical meaning needs to be defined.[76] This is the focus of Proposition 2.

Interpreting the duty of care

Rights and responsibilities are inseparable components of property.[77] A holder of legal property rights to beneficial use and enjoyment of land is bound by their legal responsibilities to neighbouring landholders (and through regulation to the broader community).[78] Australian society is increasingly concerned about farmers' natural resource management, illustrated by media coverage of land degradation, water use issues, drought, and food production.[79] There is uncertainty about what

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76 Chris Cocklin, Naomi Mautner and Jacqui Dibden, 'Public policy, private landholders: Perspectives on policy mechanisms for sustainable land management' (2007) 85 *Journal of Environmental Management* 12; Jim Crosthwaite, *Farmer Land Stewardship: A pillar to reinforce natural resource management?* (2001) <www.agrifood.info/connections/summer_2001/Crosthwaite.html> accessed December 2009.

77 R W G Bryant, *Land: Private Property and Public Control,* Environment Series (1973); H Demsetz, 'Towards a Theory of Property Rights' (1967) 57 *American Economic Review* 347; Charles Rowley, *Property Rights and the Limits of Democracy* (1993); John Brewer and Susan Staves, *Early Modern Conceptions of Property* (1995); Standing Committee on Environment and Heritage, above n 1; Hone and Fraser, above n 2; Raff, above, n 54.

78 Standing Committee on Environment and Heritage, above n 1, para 44, p28 (Dr Murray Raff).

79 Mick Keogh, 'Success requires innovation - on and off the farm' (2005).

duties a farmer has (or ought to have), reflecting both legal property rights and community perceptions of moral duties.[80] Political positions in the property rights and environmental responsibility debates can be characterised as supporting either un-attenuated freedom of use, or greater restriction on use of resources. Non-attenuation is generally the position of farming interest groups, who see a legislated duty of care as providing greater freedom from government's detailed prescriptive regulation that otherwise constrains farming. This position reflects a view that, provided farmers satisfy a narrowly defined responsibility to the environment, they ought to be free to operate unhindered and be compensated if their operation is otherwise interfered with in the public interest. This narrow accountability interpretation of a duty of care is represented by groups such as the Australian Farm Institute, NSW Farmers Association and the National Farmers Federation.[81]

A duty of care has been promoted as a way to stimulate innovation by providing protection to farmers from detailed prescriptive regulations that limit land use options.[82] This potential to support innovation by individual farmers in a way that helps meet public expectations has been highlighted,[83] suggesting that a legal duty may assist farmers to align their operations with regional natural resource management plans using industry codes, best management practices and environmental management systems.

The duty of care is also supported by stakeholders with quite different aims and expectations. Greater attenuation of rights to access natural resources, based on expectations of virtue, underpins the advocacy of a legal duty of care by conservation groups, who see duty of care as a complement to detailed prescriptive regulation. Conservation interest groups argue that landholder responsibilities have been poorly defined.[84] These stakeholders often believe that farmers have an obligation to go beyond compliance with regulation in their land management. In practice, conservation interests reflect a belief that responsibility encompasses 'the management of off-farm impacts such as salinity, soil erosion, pollution, and regional biodiversity decline' in addition to responsibility for impacts on the farm.[85] This version of a duty of care presupposes that many public interests that farmers believe ought to be funded by the public should be satisfied without

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80 Standing Committee on Environment and Heritage (2001), above n 1.

81 National Farmers' Federation, above n 62; Jack A Sinden, 'Who Pays To Protect Native Vegetation? - Costs To Farmers In Moree Plains Shire, New South Wales' (2002); The National Farmers Federation, 'Community Attitudes to Farmers and Resource Security' (2003); Bryan Pape, 'Taking Farmers Property Rights Seriously and Just Compensation On Their Taking' (2003); Macintosh and Denniss, above n 62.

82 Australian Farm Institute, 'Statutory Theft' (2001).

83 Bates, above n 1; Young, Shi and Crosthwaite, above n 1.

84 Australian Conservation Foundation, 'Rights and Responsibilities in Land and Water Management' (2002)

85 Ibid.

compensation. This position is represented in the duty of care advocacy by groups such as the Australian Conservation Foundation (ACF), WWF, and the Inland Rivers Network.[86]

The following examples illustrate this range of views about the obligations associated with land management and competing expectations of accountability as (a minimum standard of) reasonable care or virtue (a stewardship aspiration). The range of views are embodied within the advocacy of a duty of care and they highlight complexity as different interests with differing interpretations use competing meanings interchangeably.

The Earth Charter proposes a shared vision of values and principles as the standard for guiding and assessing conduct. Respect and care for the community of life includes: respect earth and life in all its diversity; care for the community of life with understanding, compassion and love, build democratic societies that are just, participatory, sustainable and peaceful; and secure the earths' bounty and beauty for present and future generations.[87] This places a duty or ethic of care as a central guide to resource use practice, drawing on a shared vision of land health.[88] It encourages farmers to adopt a sense 'that they are part of a community of responsible neighbours, each guided by a similar vision of sustainable life, each knowing that ownership means duty, that duty means care, and that care, in the end, is our sole source of hope.'[89] Responsible conduct promotes limits on farmers' actions, emphasising the inherent social and environmental obligations of ownership where rights are reconceptualised based on stewardship, and where reasonableness is equated to a prudent environmental enquiry.[90] The Earth Charter vision proposes an allocation of responsibility based on virtue.

The NSW Department of Primary Industries has published a handbook on managing conflict about land use on the NSW North Coast. They define duty of care to mean the management of natural resources that takes all reasonable and practical steps to prevent harm to the environment, to people and to areas of cultural heritage.[91] The message from this directive is mixed. On the one hand

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86 Warwick Moss, 'Why The Property Rights Debate Is Holding Back Reforms- A Case For A Focus On Structural Adjustment' (WWF, 2002); The Wentworth Group of Concerned Scientists, *A New Model for Landscape Conservation in New South Wales* (2003); WWF, 'Native Vegetation Regulation: Financial impact and policy issues.' (2005); Australian Conservation Foundation, *The Property Rights Dilemma - Resolving Rights and Responsibilities in Land and Water Management* (no date) Australian Conservation Foundation <http://www.acfonline.org.au/default.asp?section_id=62> at 10 September 2006.

87 Earth Charter International, 'The Earth Charter. A Declaration of Fundamental Principles for Building a Just, Sustainable and Peaceful Society in the 21st Century' (2000).

88 Eric T Freyfogle, 'Ethics, Community and Private Land' (1996) 23 *Ecology Law Quarterly* 30.

89 Ibid 649.

90 Murray Raff, 'Environmental obligations and the western liberal property concept' (1998) 22 *Melbourne University Law Review* 35, 692.

91 Rob Learmonth et al, *Living and Working in Rural Areas: A handbook for managing land use conflict issues on the*

the implication is that 'current best practice' is synonymous with an obligation to use natural resources sustainably and to care for the land. On the other hand, the use of the terms 'reasonable' and 'practical' suggests minimum accountability for a duty of care.

Policy advice to the Commonwealth Minister for Agriculture refers to the duty of care as the statutory baseline or minimum standard of resource management that all farmers need to provide,[92] implying a statement of minimum accountability. However the words further describing this duty suggest a virtuous conception, where reasonable care is: not harming the interests of other people in the catchment; not diminishing the productive potential of other land or water (including likely future productivity); not diminishing the contribution that remnants of native vegetation make to agreed regional, national and international biodiversity objectives; and not diminishing the quality of water supply, recreation, ecological and other services associated with water bodies.

Economic incentive payments in England illustrate a similar dichotomy in the application of land stewardship to farming, where good agricultural practice represents the level of management, inclusive of basic environmental standards, expected from farmers as part of their ordinary use of land.[93] However, the mixed messages regarding extent of accountability demonstrate confusion about what good practice means. The EU common agricultural policy uses good agricultural and environmental practice as a baseline standard of accountability for farmers.[94] Land stewardship incentives encourage good farming practice beyond the good agricultural and environmental condition baseline.[95] Such aspirations are similar to those underpinning Australia's adoption of a statutory duty of care.[96] In England the accountability standard (good agricultural and environmental practice) is implemented using the 'Single Payment System' while the caring performance standard (good farming practice) applies under a tiered 'Stewardship Scheme'.

Both these approaches incorporate soil protection, where management guidance is provided by reference to government guidelines and/or codes of practice. For example, one document to guide implementation of good agricultural and environmental condition and good farming practice is a

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NSW North Coast (2007) 26.

92 Agriculture and food policy reference group, 'Creating our future: Agriculture and food policy for the next generation' (2006).

93 Christopher Rodgers, 'Agenda 2000, land use, and the environment: Towards a theory of 'environmental' property rights?' in Jane Holder and Carolyn Harrison (eds), *Law and Geography. Current Legal Issues 2002* (2003) vol 5, 239.

94 Rural Payments Agency and Department for Environment Food and Rural Affairs, 'Single Payment Scheme. Cross Compliance Guidance for Soil Management' (PB11162, 2006) see page 2.

95 Rural Development Service, 'Entry Level Stewardship Handbook. Terms and Conditions and How to Apply.' (PB10355, 2005).

96 Gardner, above n 1; Standing Committee on Environment and Heritage, above n 1; Industry Commission, above n 1.

manual for the assessment and management of soil erosion.[97] This document supports assessment of erosion risk on the farm but does not connect the farm with the catchment by addressing risks of cumulative soil and water movement off-farm and their potential impact on the ecological status of receiving waters.[98] This raises a question about whether responsibility is focused upon impacts within the bounds of property (an accountability perspective) or upon broader community and environment effects (a virtue perspective).

A more ambitious approach to the duty of care is as a means to establish social expectations for improved environmental management performance from farmers.[99] Under this approach regulation is used to specify the minimum standard of accountability, but higher expectations of stewardship are specified through environmental management systems and an approved code of practice.[100] This places a duty of care as the link between voluntary industry codes and standards and mandatory legal obligations. This is reflected in the Queensland and Tasmanian implementation of a statutory duty for the environment, where the broad duty is translated into specific practices defined by the industry itself. The result is a juxtaposition of minimal accountability to satisfy specific rules upon a framework of 'duty' that aspires to virtue-based accountability. It is unclear in this approach what level of accountability the duty of care represents, leading to unresolved ambiguities.

Some duty of care proponents emphasise self-regulation for achieving increased virtuous stewardship. For example, a number of industries adopt principles and practices that define right conduct and specify a commitment to the community in accord with moral restraint and aspiration, often codified in voluntary standards.[101] Such codes are generally virtue focussed, involving: a moral discourse to challenge conventional practice; conscious deliberation about industry custom and its role in guiding moral conduct; identification and accounting for broader moral issues beyond economic efficiency; legitimisation of aspirations other than profit as a good reason for action; a framework for the industry best practice with standards; acceptance of the framework; and an account of behaviour to the public.[102] This reflects a trend for rural industry to seek recognition for

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97 Department for Environment Food and Rural Affairs, 'Controlling Soil Erosion: A Manual for the Assessment and Management of Agricultural Land at Risk of Water Erosion in Lowland England.' (PB 4093, 2005).

98 John Boardman et al, 'Soil Erosion and Risk-assessment for On- and Off-farm Impacts: A Test Case Using the Midhurst Area, West Sussex, UK.' (2009) 90 *Journal of Environmental Management* 2578.

99 Neil Gunningham, 'Incentives to Improve Farm Management: EMS, supply-chains and civil society' (2007) 82 *Journal of Environmental Management* 8 306.

100 Ibid 309.

101 Neil Gunningham and Joseph Rees, 'Industry Self-regulation: An Institutional Perspective' (1997) 19(4) *Law & Policy* 376.

102 Ibid 379.

their codes of practice as demonstrating fulfilment of legal requirements for land management.[103] In doing so, the tension between stated aspirations of virtue and narrowly framed specific details of required practices become convoluted. The following discussion highlights various proposals to integrate concepts like duty of care, stewardship, and catchment care with farm sector self-management and environment management systems.

Providing farmers with the means for self-regulation based on 'reasonable care', which is implicit in a duty of care, gives farmers the impression that it offers freedom to choose the appropriate way to meet self-defined obligations.[104] Here there is an emphasis on the ability for farmers to use their own attitudes and knowledge to define the expected environmental outcomes for their region in a way that fits in with their circumstances.[105] Farmers are encouraged to achieve change by using a voluntary code that may be recognised under a catchment plan or other administrative requirement.[106]

The 'catchment care principle' is yet another means for defining farmers' responsibility to the community, reflecting a standard of performance that distinguishes between 'polluter pays' and 'beneficiary pays'.[107] The focus of this obligation is on maintaining productive, functioning landscapes. Farmers' responsibility is not to clear native vegetation where, on the best available science, such a move would be contrary to the long-term interests of rural industries.[108] Best available science is structured around standards of performance for water quality, salinity, biodiversity, and soil conservation. This approach explicitly avoids using the words 'a duty of care' to conceptualise responsibility on the basis that the duty is not flexible in adapting to performance requirements across different farming types and landscapes.[109] One is left wondering what, then, is the purpose of enacting legislation imposing a duty of care for the environment if it is not to require precisely this sort of flexible but disciplined balancing of interests.

Specifying the expected level of practice has been proposed by the Australian Farm Institute as a way for defining a duty of care to ensure that farming activities do not reduce the long-term productivity

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103 See the duty of care formulations for Queensland and Tasmania, identified in Chapter 1. For a detailed case study of co-regulation and the cotton industry see Paul Martin et al, 'Developing a Good Regulatory Practice Model for Environmental Regulations Impacting on Farmers' (2007).

104 Young, Shi and Crosthwaite, above n 1, 9.

105 Bates, above n 1; Chris Cocklin, Naomi Mautner and Jacqui Dibden, 'Public policy, private landholders: Perspectives on policy mechanisms for sustainable land management' (2007) 85 *Journal of Environmental Management* 12.

106 Young, Shi and Crosthwaite, above n1.

107 Steve Hatfield-Dodds, 'The catchment care principle: A new equity principle for environmental policy, with advantages for efficiency and adaptive governance.' (2006) 56 *Ecological Economics* 12.

108 The Wentworth Group of Concerned Scientists, above n 87.

109 Ibid 7.

of the land.[110] The suggested level of practice is based on reasonable care as a standard of performance to protect the access and use rights of farmers. It is an attempt to define the duty of care within the limits of the traditional right to exploit constrained by specific accountabilities. As with other proposals to integrate codes of practice with broader duties of care, the intention is to limit the obligation of the primary producer to well-specified (and preferably narrow) responsibilities. This is an attempt to limit the ambiguities of virtue-oriented requirements upon farmers, whilst still retaining the appearance of embracing the social licence connotations of the duty of care.

The duty of care as a meaningful boundary of responsibility

The boundary between freedom to exploit and social obligations to conserve or restore is termed the boundary of responsibility. It is the practical expression of what farmers are expected to do. That is a general expectation that farmers will act responsibly and meet social expectations through environmental stewardship.[111] This typically entails not causing avoidable harm and honouring legal obligations.[112] Performance is judged by acting consistently with specified legal obligations and unspecified behavioural norms.[113] Farmers may be held accountable (formally or informally) should they transgress their boundaries of responsibility.[114] The boundary is partly fluid reflecting minimum accountability (against defined legal obligations) or more ambiguous expectations of virtue.[115] The legal duty of care is a process for defining a boundary of responsibility that seems to partly embody expectations of virtue. It sets a new boundary of responsibility but it is not clear the extent to which it expands the legal accountability boundary.

The boundary of responsibility is not one-dimensional. Farmers have many responsibilities: to their families; workers; community, and to the environment. For each aspect of responsibility, the boundaries are shaped by laws, norms and social expectations. For a boundary setting process to be practical, it needs to focus farmers' effort and resources where responsibility clearly lies. This ought to provide a basis for genuine dialogue with stakeholders, an ability to develop skills (capacity building) with the effect to encourage action that is disciplined by clear expectations. Without this,

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110 Keogh, above n 80, 33.

111 N Bowie, 'New directions in corporate social responsibility (moral pluralism and reciprocity).' (1991) 34(4) *Business Horizons* 56; L Moir, 'What do we mean by corporate social responsibility?' (2001) 1(2) *Corporate Governance* 16; Warhurst, above n 65.

112 Bowie, ibid.

113 Epstein, above n 64.

114 To bear responsibility requires acknowledgement of the potential to be called to account. This may be to a formal institution like a tribunal, commission or court; or an informal (but no less concrete) group like parents, children or a circle of friends; or to a metaphysical forum such as God or human kind. Bovins, above n 55, see page 28.

115 Ibid.

farmers face significant practical problems, such as: investment in pursuit of fruitless causes; naïve awareness about the relevant social and environmental issues; a weak basis for working relationships; and reaction to demands without the benefit of strategy.

A number of factors determine expectations of what is ecologically and socially feasible (Table 2.2).[116] They help shape a social discourse wherein boundaries of responsibility are constantly being renegotiated. These factors suggest the difficulty of using a legal duty of care to specify expectations for good stewardship of natural resources. That is because if the boundary setting process is based on a common law interpretation of 'reasonable care', it will uphold the exploitive freedom of property within a defined level of (minimal) accountability. Such standards are unlikely to satisfy (virtuous) legitimacy and social trust concerns about stewardship of natural resources.

Table 2.1: Factors defining a boundary of responsibility

Factors	Description
Norms of Behaviour	Social 'norms' influence the expectations of industry behaviour.[117] Morals, ethics and values help define norms.[118] Morals refer to personal standards of behaviour and distinguishing between right and wrong. Ethics is broader including formal and informal rules of conduct, while values are beliefs about what is valuable or important.[119] Converting expectations to practice requires some correlation between the social norms, business culture and operating rules.[120] This is more likely when there is a mechanism to hold decision-makers accountable for their performance against the norms.[121]
Exploitative Freedom of Property	The social and legal expectation is that a property right carries a substantially un-attenuated freedom to exploit for private gain, subject to strictly delimited rights of the Crown applied through regulation and the obligation to avoid harm to other legal interests.[122]
Legitimacy	Legitimacy arises from accepted roles or from a dialogue with stakeholders reflecting genuine intent.[123] It helps to ensure a focus on what is expected under the social licence rather than trying to address an open-ended range of socio-economic and environmental concerns.
Social Trust	Social trust is a key consideration in the maintenance of social licence.[124] During resource access conflicts partisan arguments are weighed in the light of what is known about the social performance of the sector. Perceived failures of responsibility undermine credibility relative to other interest groups.

116 Hajer, above n 51, 294.

117 Hutter, above n 63.

118 Bowie, above n 112; A B Carroll, 'The pyramid of corporate social responsibility: Toward the moral management of organisational stakeholders' (1991) 34(4) *Business Horizons* 39; Epstein, above n 64; Moir, above n 112.

119 Pearsall and Trumble, above n 68.

120 Epstein, above n 64.

121 Bovins, above n 55.

122 For an overview see Raff, n 54.

123 M Muller and B Siebenhuner, 'Policy instruments for sustainability oriented organisational learning' (2007) 16 *Business Strategy and the Environment* 232.

124 John F Dovido, *The Social Psycology of Prosocial Behaviour* (2006); Michael Siegrist, Carmen Keller and Henk A L Kiers, 'A New Look at the Psychometric Paradigm of Perception of Hazards' (2005) 25(1) *Risk Analysis* 211; Matthias Weber and Jens Hemmelskamp, *Towards Environmental Innovation Systems.* (2005).

These factors generate competing expectations of behaviour, which suggests that clear boundaries between freedom to exploit for private gain, and constraints on exploitation in the public interest, will not be set by law alone.

Boundaries of responsibility (as reflected in a statutory duty of care) ought to reflect genuine dialogue with stakeholders over the relevant social and environmental issues associated with a social licence, and investment of resources to meet expectations. Clarity about boundaries of responsibility will not be found merely by responding to the ever-shifting expectations of society. What is absent from the documented dialogue about farmers' responsibilities is a consensus, or even processes to seek consensus about where the boundaries do lie. Competing propositions are advanced and remain unresolved.

Critical evaluation of the environmental performance of farmers occurs through networks such as local communities, environmental stakeholders, or networks of competing water users. Networks are likely to be the 'place' where criticisms of farming acquire political power. Networks then are relevant for considering farmers' responsibility and defence of the social licence as they can foster shared norms and support cooperation that leads to changes in wellbeing.[125]

Preparedness to act on responsibilities is likely to arise through awareness of community wellbeing and dialogue within the networks linking the farmer to society. Well-being is described as an overall satisfaction with life.[126] This has been proposed as a basis for developing expectations of performance associated with natural resource management.[127]

This suggests that boundaries of responsibility for farming may be best refined through a process where farmers develop networks with relevant communities, through which they explore their specific contribution to wellbeing. Attention to the welfare concerns of relevant networks makes it more likely that specific issues, circumstances and power relations will be reflected in a tacit agreement about social responsibilities. This would lead farmers (or a farming industry) to report against specific contributions to the welfare of specific networks, rather than more ill-defined generalities about the impact of farming on the environment. Common law duties imply a connection between a farmer's natural resource management action and others who may be

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125 Organisation for Economic Cooperation and Development, 'The wellbeing of nations, the role of human and social capital, education and skills' (2001).

126 Australian Bureau of Statistics, 'Measuring social capital, an Australian framework and indicators' (2004).

127 Stewart Lockie et al, 'Capacity for change, testing a model for the inclusion of social indicators in Australia's national land and water resources audit' (2002) 45(6) *Journal of Environmental Planning and Management* 813.

adversely affected by those actions (communities). Administrative law duties however speak of a relationship between the resource user and the agents of government.

A duty of care applied administratively suggests a hybrid arrangement under which bureaucracy acts as an arbiter of the needs and interests of the community. Whether such a complex role for a bureaucracy is what is intended, or whether the Parliamentary intent is to limit the decision role of administrators to technical questions, is not clear on the face of the legislation. Neither is it clear what interpretive processes ought to be followed in applying the duty of care to specific situations. In the following section I consider the implications of this type of ambiguity.

Application of duty of care

A large part of the law is the interpretation of words relative to specific facts of particular cases before the court. Many terms of law carry deep specialist meanings and are highly nuanced. The words of statute are interpreted by government officers, those whose actions are being regulated, lawyers, commentators and particularly, judges. These various groups do not necessarily share the same understanding of terms or expectations of their application. Interpretation often takes place against the background of fact situations unanticipated by the legislature. Meanings can be attached to a statute's words in unanticipated ways due to this intersection of complexities.[128] An applied meaning of statutory words that differs from that intended by Parliament can result in outcomes that are contrary to policy intentions. Two examples, summarised in Table 2.2, from NSW demonstrate this: native vegetation legislation demonstrates the challenge of bringing new statutory principles into legislation, and the application of the precautionary principle demonstrates the difficulty of predicting how particular words will be interpreted in environmental courts.

The NSW *Native Vegetation Conservation Act* 1997 created new offences for unauthorised land clearing, with significant fines and potential criminal charges. The magnitude of the offence was calibrated to the scientifically determined ecological value and rarity of the vegetation. Proof of the offence also required technical evidence of the state of the vegetation prior to the alleged land clearing. The legislation assumed the availability of scientific data, or the capacity of science to make reasonably clear judgements about scientific 'facts' to determine the conservation value and extent of species and landscapes. The parliamentary debates over enactment of the legislation demonstrated the belief that it would be feasible to precisely categorise landscapes and estimate the

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[128] David Farrier, Rosemary Lyster and Linda Pearson, *The Environmental Law Handbook: Planning and Land Use in New South Wales* (Third ed, 1999) 65.

ecological impacts of land use and land clearing,[129] and the words of the legislation reflect this belief. The reality demonstrated by practice was that scientific certainty was not possible for large parts of the landscape. Standards of reliability generally accepted for science were far from sufficient for legal prosecution for unauthorised land clearing.

Table 2.2: Examples of statutory implementation challenges

Statutory Intention	Application Problems
Conservation and management of native vegetation by the control of land-clearing under the *Native Vegetation Conservation Act* 1997 (NSW).	Due to the reliance in the legislation on scientific processes which were not reliable at the evidentiary level required for prosecution, the law proved impractical to successfully prosecute for land-clearing. Consequently it was difficult to enforce the protection of native vegetation. After six years the act was replaced.
The precautionary principle for decision making in the *Protection of the Environment Administration Act* 1991 (NSW)	The "Precautionary Principle" is a term with apparent clarity of meaning in environmental policy. In 1991 it was incorporated into environmental impact assessment of proposed developments. However twelve years of judicial interpretation has been required in the New South Wales Land and Environment Court about what the principle demands of a decision making process in practice. The deliberations often resulted in significant variations in the legal principle applied in practice. Gradually the courts have developed a detailed legal framework to apply the principle.

Five years after enactment of the NSW *Native Vegetation Conservation Act* (1997), the Auditor-General found that no strategic approach to vegetation conservation had been established, and that there was a lack of comprehensive, scientific information about the status of vegetation in NSW which would enable the effective and efficient application of the Act; no prosecutions for vegetation clearing under the Act were successful in court.[130] The impracticality of the legislation due to the limits of science has led to legal and political conflict, economic cost, and undermined the credibility of government agents charged with its enforcement.[131] A similar problem exists with the effectiveness of the *Environment Protection & Biodiversity Conservation Act* 1999 (Cth), which is currently under parliamentary review.[132] Implementation experience has shown that for such

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129 New South Wales, *Parliamentary Debates*, Legislative Assembly, 19 November 1997, 2075 (Kim Yeadon, Minister for Land and Water Conservation).

130 Auditor-General of New South Wales, *Performance Audit Regulating the Clearing of Native Vegetation Follow-up of 2002 Performance Audit* (2006).

131 Productivity Commission, 'Impacts of native vegetation and biodiversity regulations.' (2004); Ibid; Martin et al, above n 104.

132 Standing Committee on Environment, Communications and the Arts, Parliament of Australia, The Senate, *Inquiry*

environmental laws, feasibility in practice requires substantial complementary investment in science data and methods coupled with the availability of detailed legal principles established either in the legislation itself or sourced from legal precedent.

The fraught implementation of legislation to protect native vegetation illustrates the extent to which environmental law statutes are dependant on complimentary scientific data and its interpretation. In the absence of clear principles and reliable evidence, courts are obliged, by the burden of proof and procedural requirements, to be conservative in the application of a statute.

The challenge of legal application of the language of environmental policy, through administrative law, is further illustrated with the precautionary principle. The precautionary principle has been incorporated into a number of Australian statutes. Problems that have emerged with the application of the principle illustrate the potential difficulties that arise when there is no suitable precedent upon which the judiciary can rely to develop detailed interpretative procedures. The term itself has a well-developed meaning in policy science and debate (though there are significant disputes about what it requires when applied in practice). Through the Biodiversity Convention it has become embedded as a principle in international environmental law.[133] However, its translation into local law through application by administrators and appeal to the courts has proven vexed, largely because of the lack of a body of precedent to explain the nuances of its application. Much like duty of care, the words are a shorthand for a reasoning process, and courts tend to seek to find (or create) a more detailed description of the reasoning processes so that the community can have a clear normative sense of what is likely to be required of them.

The *Protection of the Environment Administration Act* 1991 (NSW) introduced a statutory precautionary principle (s 6(2)(a)) in determining development approvals by local government or state ministers. The economic consequences of applying the precautionary principle have led to court challenges. In court the principle was initially described as representing political aspiration with the potential for 'interminable forensic argument'.[134] It has taken twelve years of legal interpretation before the courts have been able to provide a detailed judicial explanation of the principle and specified a procedure for its application.[135]

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into the operation of the Environment Protection and Biodiversity Conservation Act 1999 (Cth), Terms of Reference (2009).

133 *Convention on Biological Diversity*, opened for signature 5 June 1992, 31 ILM 822 (entered into force 29 December 1993).

134 Talbot J. in *Nicholls v Director General National Parks and Wildlife Service* (1994) 84 LGERA 397.

135 Preston CJ. in *Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133 (24 March 2006) para.127-183.

The same interpretive problems seem likely to arise from incorporation of the duty of care into natural resource legislation. Courts are likely to find it difficult to invest the term with the more detailed processes they require. Proposition 3 in this thesis predicts they will resort to the common law duties of care where this language is part of a well-defined reasoning process. This issue will be further explored in Chapter 4.

As explained in Chapter 1, duty of care in common law is short hand for a reasoning process that has developed over centuries. Duty of care is traditionally used in resolving disputes between citizens for damage to their private interests. In its new sustainability application, duty of care is intended to be used for setting boundaries of responsibility between citizens and the state, about the ways in which the citizen is entitled to treat the environment, or perhaps more suitably, ecological systems. The objectives are, in themselves, complex, and the evaluation of environmental impact and causation from particular management action is far from simple.[136] Whilst there are some indications of expected content there is no clarity about the reasoning process to be applied.[137]

Principles and standards for sustainable agriculture

Sustainability is primarily about the management of behaviour. Regulation is one tool for managing behaviour but standards and principles must be clear otherwise it is not possible to implement the environmental management regulation.[138] The literature reveals a number of different approaches to defining what the legal principles and standards for land use management should be:

Policy approach

Land management policy principles have been suggested as the way to convert broad aspirations into actionable legal duties (Table 2.3).[139] These are suggested to represent the formal regulatory expectations of land managers as expressed at a policy level. In 1998, the Industry Commission Inquiry into Ecologically Sustainable Land Management identified five principles (summarised in column 1 of Table 2.3). The Inquiry investigated the use of agricultural land and natural resources in light of ecologically sustainable management. It generated a view that recasting the regulatory regime was necessary to ensure that owners and managers of resources take environmental impacts

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136 This reflects the complexity of completing an assessment that incorporates ecology, soil sciences, environmental economics, ethics, planning and land use change. See Richard Hey, 'River Processes and Management' in Timothy. O'Riordon (ed), *Environmental Science for Environmental Management* (2000).

137 For example, see Queensland Farmers Federation, above n 13, which supposedly clarifies what is required for farmers to meet the general environmental duty of care in s.319 *Environmental Protection Act* 1994 (Qld).

138 Evidence to Standing Committee on Natural Resource Management, Parliament of NSW, Legislative Assembly, Sydney, 21 February 2006, (Professor Paul Martin); Standing Committee on Environment and Heritage, above n 1.

139 For example, see Standing Committee on Environment and Heritage, above n 1; Industry Commission, above n 1.

into account in their decision-making. A recommendation for a statutory duty of care was part of the outcome of the Inquiry and this has been adopted into statute in several Australian states.

Table 2.3: Policy principles for a farmers' duty of care

Principles for land management, natural resources and environmental protection (Industry Commission).	Principles of public good conservation (Parliamentary Inquiry)
(i) Land managers duty of care for the environment established by statute, with the associated rights and obligations as far as is reasonable and practical, (ii) To identify and manage the risks of causing harm to the environment, (iii) To inform those directly at risk of foreseeable personal or financial harm, (iv) To inform the regulatory agency of the risk of foreseeable harm to the environment, (v) To consult with those at risk of foreseeable harm.	(i) Landholders rights in respect of land use, (ii) Statute establishes a landholders duty of care to manage land in an ecologically sustainable manner, (iii) Policies and programmes must focus on outcomes, (iv) Repairing past damage is a shared responsibility, (v) All programmes must be tailored to meet the needs of the circumstances (vi) All programmes must be based on the latest and best scientific data

Another set of principles was suggested by the Parliamentary Inquiry into Public Good Conservation in 2001 (summarised in column 2 of Table 2.3). This inquiry focussed on the impact of public good conservation measures imposed by government on landholders and farmers. In part, it sought to identify potential policy means to equitably share the costs of public good conservation across the community. A statutory duty of care was recommended as a way of clearly defining rights and responsibilities for access and use to natural resources, and establishing eligibility for public funding. Interestingly for this research, the parliamentary committee considered that a landholder's duty of care should be clearly defined and that the courts would provide the proper forum to test the application of a duty of care to the environment.[140] The recommendations from the Parliamentary Inquiry have not been adopted and are a source of investigation in this thesis.

While both sets of principles are sound aspirations, they do not provide the type of specific guidance that courts have demonstrated that they need if they are to apply (or to interpret how administrators should apply) a new legal obligation that can result in substantial private costs. Courts require greater specificity than is provided by such political rhetoric.

Farming Systems Management

Farming systems research has also attempted to define specific standards and principles to guide sustainable natural resource use. For example, 'Critical success factors for multi-purpose farming

[140] See Standing Committee on Environment and Heritage, above n 1, paragraphs 6.23 to 6.26.

systems' (Box 2.1).[141] These are intended to provide practical guidance about the management approach that underpins sustainable agriculture. It is an attempt to specify behavioural norms for sustainable land management. This has been an area of fertile contribution from academic sources about the essence of sustainability in practice for agriculture. Other similar approaches include 'principles for rural land management,'[142] 'fundamental requirements for sustainable farming systems',[143] and the principles for ecologically sustainable farming systems in Australia.[144]

Box 2.1: Critical success factors for sustainable farm management[145]

(i)	Know natural resource condition and limitations and the linkage of these to business success
(ii)	Natural resources are viewed and valued as business assets that can depreciate
(iii)	Inputs are matched to production potential
(iv)	High input production is planned for environmentally stable and resilient sites with the appropriate protection measures in place
(v)	Active participation in conservation as part of the business plan
(vi)	Seek environmental accreditation and partnerships for development of environmental services
(vii)	Environmental management is integrated into farm decision making and planning
(viii)	Support and participate in education
(ix)	Willingness to achieve change in organisational culture

As statements of aspiration without legal implications, such statements are useful in focussing management. However their usefulness as a basis for specifying farmers' legal responsibilities is limited.

Science based principles

Greater specificity in defining good (or bad) resource management can be found in the natural resource science literature. Some advocates of a duty of care approach to farmers' accountability refer to science-informed sustainability practices as the platform for sustainable land use. In practice, the interface between the scientific and legal paradigms is far from seamless.

By way of illustration the approach in New South Wales is one where science-based environmental standards underpin regulation of farming practice.[146] Although not linked to a statutory duty of care

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141 Neil Southorn, 'Challenges and opportunities for multi-purpose agriculture in Australian farming systems' (Paper presented at the AgroEnviron, University of Udine, Italy, 2004).

142 Sue McIntyre, 'The way forward, from principles to practice' in S McIntyre, J G McIvor and K M Heard (eds), *Managing and conserving grassy woodlands* (2002).

143 John B Passioura, 'Can we bring about a perennially peopled and productive countryside?' (1999) 45 *Agroforestry Systems*.

144 M C Watts, 'Getting on track? A discussion paper on Australia's progress towards ecologically sustainable management of our rural landscapes' (Australian Conservation Foundation, 2004).

145 Southorn, above n 142.

146 There are three interrelated statutes that establish this science-based framework for sustainable land management. These are the *Catchment Management Authorities Act* 2003 (NSW), *Natural Resources Commission Act* 2003 (NSW), *Native Vegetation Act* 2003 (NSW). These three Acts need to be considered together for this purpose as they integrate to establish state-wide standards and targets, establish statutory catchment plans and link those to on

for environmental protection, such standards and targets provide a good example of using a scientific approach to define responsibility. This regulatory framework follows the recommendations made by the Wentworth Group of Concerned Scientists.[147] The standards address water quality, salinity, biodiversity, and soil conservation. Under this model, the regulation requires that a property vegetation plan be drawn up, which becomes the de-facto contract between a farmer and the state. The plans define offsets associated with clearing approval,[148] may be required for native vegetation incentive funding, and can be used to define when future clearing approval will not be required.[149] The plans are intended to provide investment security, management flexibility, and financial support opportunity for land managers.[150]

These standards are more detailed than is traditionally specified in regulations. The implementation of these detailed scientific standards has shown itself to demand a great deal of data and time. It has involved complexity for farmers and government and has reduced reliance on the farmers' judgement in the light of local conditions and operating needs.[151] As Martin notes, there are also unintended costs that arise due to an insufficiency of data and analytic processes, causing frustration for farmers who must delay carrying out normal farming activities while they wait for bureaucratic processes to be followed through and data to be evaluated.[152]

Principles and standards may play an important role in moving policy intentions to practical outcomes for natural resource management. They can help to define the sort of behaviour that is expected of farmers. However to date they have not proven to be a robust basis for applying even very specific legal obligations not to destroy vegetation or to cause other specific harms. As already discussed, a legal duty of care is likely to require that administrators (and eventually courts) convert broad aspirations into specific requirements. The legal system will require the satisfaction of a

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ground performance via property vegetation planning.

147 The Wentworth Group, above n 87.

148 Under the *Native Vegetation Act* 2003 (NSW).

149 NSW Government, *Native Vegetation Management in NSW, Native Vegetation Act 2003. Information Sheet 3* (2005) New South Wales Government Department of Environment, Climate Change and Water <http://www.environment.nsw.gov.au/vegetation/publications.htm> at 2 September 2009.

150 The Wentworth Group, above n 87, see page 9 regarding property management plans.

151 Government mandated legislation related to catchment management and its administration has the effect of crushing local initiative (Carr, above n 69, 110); Uncertainty surrounding what a person may or may not do under public good conservation regulation reduces the confidence of landholders to invest in new forms of production and innovative technology (Standing Committee on Environment and Heritage, above n 1, 66); There is a disconnect between government desire to sustain natural capital, and rural social realities due to the economic constraints on farmers and the mixed policy signals that on one hand expose farmers to volatile international markets, while also demanding increasingly complex environmental protection measures (see Matthew Tonts, 'Government Policy and Rural Sustainability' in Chris Cocklin and Jacqui Dibden (eds), *Sustainability and Change in Rural Australia* (2005). Much of the science that relates to such environmental protection remains uncertain at the local level, See Martin et al, above n 104, 72.

152 Martin et al, above n 104.

burden of proof in order to impose any penalty, which requires specific proof of violation of specific obligations upon the farmer. There is sufficient reason to believe, based on the history of other new statutory enactments for the environment that this hurdle will be difficult to overcome.

Conflict over cost apportionment

Central to the legal burden of proof is the legal convention that neither cost nor penalty should be imposed unless there is an unambiguous legal obligation to bear the burden. A significant impact on the application of the duty of care does not concern the debate about meaning and expectations surrounding duty of care; it concerns the conflict over who should pay for public good conservation on private land. The costs of conservation include (for example) foregone production from setting aside land and water for the purpose of protecting or rehabilitating the environment. Farming interests argue that, other than where the farmer is the harm-doer, imposed public good costs should be funded from the public purse.[153]

Conservation interests suggest applying the 'polluter pays' principle as part of the duty of care.[154] This viewpoint can include acceptance that land managers could be paid incentives for generating social value through environmental stewardship and production of public goods, while those generating social costs should be subject to penalty.[155]

However, 'polluter pays' faces particular difficulties in a farming context:

- The nature of farming requires the maintenance of land in an artificial state for the benefit of society: many types of 'environmental harm' are intrinsic to normal farming practices. For example, in irrigation farming, water is redirected, chemicals are applied and fauna and flora (which may be native) are controlled.
- The unresolved question of the extent to which private property rights should be constrained for the public good.[156] On the one hand, there is the expectation that farmers' responsibility for public good is extensive. The Australian and New Zealand Environment and Conservation Council (ANZECC) proposed that a farmers' private responsibility for native vegetation management 'could reasonably be expected to include protection of endangered species and/or ecosystems,

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153 Australian Farm Institute, above n 83.

154 Australian Conservation Foundation, above n 85.

155 Watts, above n 147.

156 Evidence to Standing Committee on Environment and Heritage, Inquiry into Public Good Conservation, Parliament of the Commonwealth of Australia House of Representatives, Canberra, September 2000 (Wendy Craik); Evidence to Standing Committee on Environment and Heritage, Inquiry into Public Good Conservation, Parliament of the Cpmmonwealth of Australia House of Representatives, Sydney, November 2000 (Mick Keogh); Australian Conservation Foundation, above n 85; National Farmers' Federation, above 62.

protection of vegetation on land at risk of land degradation, protection of riparian vegetation, protection of vegetation on lands of low agricultural capability and protection of vegetation on acid sulphate soils'[157]. On the other hand, farmers argue that such expectations place an unjust economic burden on them. For example, 'we have approximately 500 acres of bushland which cannot be cleared. Before the regulations came in this was worth approximately $125.00 per acre. Now it's battling to be worth $10.00 per acre. This is an injustice that I have had to suffer. It's alright for all those people in the cities who want to save trees, etc. but I am the one who bears the cost of it. I am the one responsible for the rabbits in that area, I am the one responsible for the weeds, I'm the one who has to do the fencing around the area. I believe that I should have been entitled to some form of compensation or even better still they could have bought the land at valuation, the cost of saving native vegetation would then have been borne by all the community'[158].

These issues regarding who should bear the cost of increased stewardship responsibilities by farmers is not the subject of the thesis. However the legal system requires a high level of proof of both parliamentary intent and specific breaches of the law before it will impose economic costs and restrict private property use. This raises the question, which will be explored in the empirical part of the thesis, of whether a statutory duty of care is sufficiently specific and unambiguous to be applied in any other than the most remarkable circumstances (when other more specific environmental crimes may be more readily proven).

Conclusions

A statutory duty of care for environmental protection and stewardship of natural resources exists in four Australian jurisdictions. These are worthy as general political principles of aspiration but do not in their own terms specify the practical meaning of the obligations they create. This is likely to lead to disputes where the problem of uncertainty of meaning and proof of breach will have to be resolved. These disputes may involve the courts and the application of common law principles.

The common law duty of care as a process for boundary formation views the facts of a situation against what would be considered reasonable behaviour in the same circumstances. Foreseeability of harm, the standard of care and consideration of common practice are relevant. Both in its civil use, and because of judicial standards of burden of proof in administrative law and statutory settings, a

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157 Australian and New Zealand Environment and Conservation Council, 'National Framework for the Management and Monitoring of Australia's Native Vegetation' (2000).

158 Standing Committee on Environment and Heritage, above n 1, submission No. 38.

duty of care defines meaning based on minimum accountability, suggesting that minimal environmental protection is the most likely outcome of the statutory duty of care.

The effectiveness of stewardship is its effect on the exploitive freedom of property, forming norms of conservation behaviour, and providing legitimacy and social trust for environmentally benign farming industries. This suggests high conservation standards (a different meaning than 'reasonable care'). There appears to be a fundamental tension between what political advocates expect a duty of care to mean and the meaning a legal boundary setting process is likely to deliver. This important difference between legal accountability and social virtue is concealed by the words 'a duty of care'.

Chapter 3: Interviews

Introduction

Chapter two provided results of the literature review, highlighting challenges with using duty of care in legislation to encourage more sustainable use of natural resources. This chapter presents the methodology for and results of interviews conducted to expand upon findings in the literature review, and provide further support for the main propositions in this thesis.

Interviews were conducted with farmers, government representatives, lawyers and political lobbyists concerned with farming and conservation. As expected from the literature, the interviews highlighted a diversity of stakeholder views. The results from these interviews informed the experiment (detailed in Chapter 4). They allowed better understanding of the range of expectations likely to be involved in courtroom interpretations of duty of care. They also suggested some possible meanings to be considered and the type of stakeholder outcomes that may or may not be achieved. The survey information was reflected in the design of the experimental moot problem discussed in Chapter 4. The interviews also provide some indication of the types of expert evidence that could be anticipated in the application of a legal duty of care.

Research method

Survey method

The survey was conducted in parallel with the literature review. The questions were designed in consultation with the thesis supervisors after reviewing various of the policy research papers and government reports advocating a duty of care. The questions were designed to elicit stakeholder views about:

(a) The potential meanings of and debates about the meaning and application of the term 'a duty of care';

(b) The types of contests over principle, or involved in the application of principle, that are anticipated with the requirement that farmers satisfy a duty of care obligation; and

(c) The sorts of supports that may be required to give practical effect to a legal duty of care.

The questions and the stakeholders interviewed are intended to mirror the types of enquiry that may be required in a court seeking to apply a legal duty of care. The results are intended to give the flavour of the evidence that may be considered. The sample included a number of lawyers and regulators, with the expectation that the issues they would raise would relate more specifically to issues of legal principle, practice and processes.

A two-part survey method was chosen. In the first part, each interviewee was sent information about the research and purpose of the interviews (see Appendix 2.1) and a list of questions (Appendix 2.2). The objective of this part of the survey was to introduce the topic to stakeholders and provide them with an opportunity to develop their ideas prior to the part two interview.

In part two, stakeholders were interviewed using the questions (which were not provided to the interviewees) in Table 3.1 as the structure of the interviews. The questions were open ended to maximise the potential to explore the conflicts and uncertainties associated with used the term 'a duty of care'. [159] Topics for discussion in the interviews included: the legal concept of duty of care, its application and obstacles to its use; the general notions about a duty of care; and the practicality for farmers, government and the courts of its use. The interview technique was chosen because it enabled clarification of issues (by both the interviewer and the interviewee) during the discussion.[160] The need to enable exploration and clarification was a significant consideration given the span of disciplines, and interview subjects' backgrounds, relevant to the interview questions (law and natural resource management). To reduce the inherent complexity of the topic, the focus of the discussion was kept predominantly to one aspect of natural resource management: those that particularly concerned irrigation and natural resource management.

The questions were intended to elicit, in a variety of forms, the following information:

(a) The meaning of a duty of care for the environment (Q 1a, 1b, 2a, 2b, 2c)
(b) The types of issues which might arise in practice in seeking to apply such a duty (Q 1b, 1c, 2b, 2c, 2d)
(c) The underlying norms of responsibility or accountability that could be applied through administrative or judicial use of a duty of care (Q 1b, 1c, 1d, 2a, 2b, 2c)
(d) The practical issues of farming, science or management that may require resolution in applying such a duty (Q 1d, 1e, 2b, 2c, 2d)
(e) Actions or resources or other supports that may be required to give practical effect to such a duty (Q 1d, 1e, 2c, 2d, 2f)
(f) The forms of impact which may be relevant for administrators or the judiciary to consider in applying such a duty (Q 1d, 1e, 2b, 2c, 2d, 2f)
(g) The benefits that might accrue to the affected group (farmers) from implementation of such a duty (Q 1b, 1c, 2d, 2e, 2f)

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159 Catherine Marshall and Gretchen B Rossman, *Designing Qualitative Research* (4th ed, 2006), 133-134.

160 Jennifer Mason, *Qualitative Researching* (2nd ed, 2002), 68.

Table 3.1: Interview questions

1.	**The duty of care and conflicts about farming and the environment.**
a.	What is a Duty of Care? Where does it come from, and what does it do? Do you think it is a process or a set of rules?
b.	What conflicts about farming and environment might a Duty of Care relate to? How might it be used to make a difference in situations where these conflicts arise?
c.	For the situations where a duty of care might be used, how do you think it might alter the outcome, or the process through which the outcome is realised?
d.	What are the types of challenge that exist in trying to make Duty of Care work; for farmers, for government, and for the courts?
e.	How do you think Duty of care could be made to work? What training would be needed? What data or other evidence? What dispute resolution mechanisms?
2.	**Potential content of a duty of care.**
a.	What responsibilities do farmers have as a group in relation to soil, water, vegetation and ecosystem management? What are the boundaries (or extent) of these responsibilities? To who or what are these responsibilities owed?
b.	What is the standard that an irrigator ought to be judged against in terms of looking after soil, water, vegetation and eco-systems? Is there existing information or standards that might apply to judging performance? Is there a process for deciding the appropriate standard for a range of situations? How might a court decide what an appropriate standard of performance is?
c.	What is reasonable to expect of an irrigation farmer in terms of looking after soil, water, vegetation and ecosystems? Do existing standards or other information help to define what is reasonable? Is there a process for deciding what is reasonable for a range of situations? How might a court decide what is reasonable?
d.	What harms, to who or what, are we trying to prevent, or compensate for? Is it some identifiable group, or the community in general who benefit? How might the idea of compensation work?
e.	What security might the use of a Duty of Care provide to farmers? When might it be used, and how?
f.	What are the issues that should guide irrigated agriculture to a sustainable future?

The interview questions provided the opportunity to gather in-depth information about expectations of a legal duty of care, and the practical issues that might arise during its application. This highlighted a diversity of stakeholder expectations, building on the issues identified in the literature and suggesting that for some stakeholder groups the term 'duty of care' carries meanings inconsistent with what a lawyer might expect. As the purpose of the interview research was exploratory, no conclusions needed to be drawn about the representativeness across different stakeholder groups of the views expressed in the interviews.

Interviewees

Twenty-eight interviews were conducted with individuals from eight stakeholder groups. Interviewees were identified through professional networks and upon advice from colleagues and were chosen because of their interests in the development of streamlined regulatory approaches for

farmers' natural resource management, and/or because they represented the relevant sectors of society, that is: government, civic and commercial interests.[161] Interviewees included the legal practitioners who later participated in the moot experiment detailed in Chapter 4.

Table 3.2: Stakeholders interviewed

Stakeholder Group	Participants	Code[162]	Date	Interview location
Farmers	Murrumbidgee Irrigation Area (Yanco)	F1	18 February 2008	Leeton
	Murray Irrigation District (Berrigan)	F2	3 June 2008	Telephone
	Murray Irrigation District (Conargo)	F3	28 July 2008	Telephone
	Northern NSW Irrigation Region (Narrabri)	F4	18 April 2008	Telephone
Resource Providers	Murrumbidgee Irrigation	MI1	30 November 2007	Griffith
	Murrumbidgee Irrigation	MI2	6 December 2007	Griffith
	Murray Irrigation Limited	MIL1	21 November 2007	Deniliquin
	Murray Irrigation Limited	MIL2	21 November 2007	Deniliquin
Farming Political Lobbyists	Australian Farm Institute	AFI1	11 December 2007	Sydney
	Ricegrowers' Association	RA1	21 November 2007	Deniliquin
	Ricegrowers' Association	RA2	7 December 2007	Leeton
	Ricegrowers' Association	RA3	7 February 2008	Griffith
Conservation Political Lobbyists	Australian Conservation Foundation	ACF1	19 December 2008	Melbourne
	Australian Conservation Foundation	ACF2	19 December 2008	Melbourne
	Inland Rivers Network	IRN1	23 April 2009	Sydney
Regulator	NSW Department of Env. & Climate Change (ECC)	ECC1	10 December 2007	Sydney
	ECC	ECC2	11 December 2007	Sydney
	ECC	ECC3	23 April 2007	Sydney
Fund Provider	Department of Environment and Water	EW1	4 December 2007	Canberra
	Department of Environment and Water	EW2	4 December 2007	Canberra
	Department of Agriculture Fisheries and Forestry	AFF1	3 December 2007	Canberra
Information Provider	NSW Department of Primary Industries	DPI1	15 January 2008	Griffith
	NSW Department of Primary Industries	DPI2	1 February 2008	Orange
	NSW Department of Primary Industries	DPI3	22 April 2008	Tamworth
	Land and Water Australia	LW1	11 February 2008	Telephone
	Murrumbidgee Catchment Management Authority	CMA1	9 November 2007	Coleambally
Legal Practitioners	Rural private practice	L1	12 August 2008	Telephone
	Rural private practice	L2	17 September 2008	Armidale
	Rural private practice	L3	1 September 2008	Armidale
	Environmental advocacy experience	L4	4 December 2007	Canberra
	Environmental advocacy experience	L5	10 June 2008	Sydney

Interviews were conducted face-to-face in all but five cases where it was not possible to find a suitable location and time. These five participants were interviewed by telephone. Table 3.2 provides details of the stakeholder groups, participants, date of interview and interview location.

All interviews were conducted by the researcher, who, given past experience[163] was confident of his ability to appropriately handle the social interactions and build the necessary rapport with the

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161 Hans Hurni, 'A multi-level stakeholder approach to land management' (Paper presented at the 9th ISCO Conference, Bonn, 1998); Robert F Durant, Daniel J Fiorno and Rosemary O'Leary (eds), Environmental Governance Reconsidered: Challenges, Choices, and Opportunities (2004).

162 These codes will be used throughout the Results section to reference the quotes.

163 Including prior fieldwork experience, industry knowledge and an award for teamwork and collaboration presented

interviewees.[164] Before interviews began, all participants confirmed they were happy to complete the process and have their views incorporated into the research.

The interviews were conducted in a conversational style. Recordings were made and transcribed for detailed analysis following the interviews. Recordings and transcription records have been retained in accordance with research ethics requirements.

Analysis

Analysis of the transcripts was undertaken with the aid *NVivo* software as a data management aid.[165] A copy of each transcript was stored electronically using *NVivo* and linked to the corresponding audio file. This provided easy movement between transcript and audio when uncertainties in the transcript had to be clarified. Coding of interview transcripts was done using *NVivo*. Stakeholder type, as listed in column I of Table 3.1, and interview questions, as shown in Table 3.1, were used to code interview transcripts. Coding queries could then be used within the software to extract coded text from each stakeholder and question type. These extracts from the transcripts were then read by the researcher to help distil data from the interviews for the results presented in this chapter.

Interview Results

The results are presented in order of the questions as listed in Table 3.1. Not surprisingly given the issues identified from the literature, the interviews do not provide logically consistent explanations or expectations of a duty of care. There is a polarity of minimum accountability understanding alongside expectations that a duty of care required virtuous responses to the needs of society. Even within responses from individuals there are competing connotations with different practical effects for farming. The following report of the results unavoidably reflects this lack of coherence in views about the topic.

Q1a: What is a Duty of Care? Where does it come from, and what does it do? Do you think it is a process or a set of rules?

Stakeholder interviews reflect a diversity of opinions about the meaning of a duty of care. As noted by DPI3:[166] '(duty of care is) doing what is appropriate or well-attested in a professional rank, what common society may think, or as defined in law and these may not be the same'. The ethical or general sense of care might not line up with the definition in law of a duty of care.

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by the Cooperative Research Centre for Irrigation Futures in 2005 for a project led by the researcher.

164 Mason, above n 161.

165 QSR *NVivo* Version 7 was the software used. Guidance on using this program as a qualitative data analysis tool was provided by Pat Bazeley, *Qualitative Data Analysis with NVivo* (Second ed, 2008).

166 Note that these codes are explained in Table 3.2.

That duty of care is a specific means for evaluating individual farmers' performance is a frequently occurring version of meaning. For some, this usage reflected a virtue conception of duty of care, requiring farmers to go beyond their legal accountability under statutory requirements, using best practice (particularly noted by AFI1, ECC2). For others the connotation was of a narrower obligation. DPI1 spoke of duty of care in terms of 'the social call (what the broader public think)'. F1, DPI1, LW1, CMA1, ACF1 and ACF2 said it was a contract of reasonable farm management. EW1 and EW2, ECC2, and ACF1 and ACF2 said it places limits on rights and sets standards of farm management. MIL1, MI1, DPI2 said duty of care was about responsible use and care for land. MI2 eloquently described duty of care as, 'an inbuilt understanding that there are implications for what you do and you need to think those through'. L4 saw duty of care as 'an inquiry undertaken by the reasonable farmer to investigate evidence and make a rational decision about whether their activities are going to have an undue impact on the long-term sustainability of the land'.

Also frequently identified was the applicability of a duty for all natural resource users and the use of duty of care as a process for determining responsibility. This was often linked to increasing farmers' obligations for environmental and public good performance with specific rules of farming practice based on virtue. Referred to in interviews as: 'wise use and guardianship' (IRN1), 'perception and awareness of reasonable behaviour' (F1), 'a moral message about doing the right thing' (DPI1), unspecified and diverse community expectations' (F1, F2, F3, ECC3, DPI3), 'a dialogue between state and landowners about sustainability' (DPI1, CPI2) and 'a mixture of knowledge and values about how to behave' (MIL2). Such descriptions of virtue and public good emphasise the potential tension with minimum accountability and protection of private rights that the legal duty of care may create in defining boundaries of responsibility.

The competition between alternative versions of what a duty of care might mean in practice is illustrated by statements such as a way to 'work out what environmental management is in the farmers' private interest' (DPI1), reflecting the notion that 'we all have responsibilities but not responsibilities to the whole world' (L2), contrasted with the duty of care as 'a social licence, where the community expectation is embodied in perceptions, values and attitudes' (ECC3) and used to define 'the standard and quality of guardianship to protect the land and water resource' (IRN1).

In its common law use, a duty of care is a process of reasoning, not a code of rules. In its statutory enactment for the environment, the duty of care has sometimes been transmuted into technical rules by incorporating compliance with particular detailed codes of practice as demonstrating satisfaction of the broader duty. A prominent conception by interviewees is that the duty of care is a process, with a lesser role to define specific rules. Some interviewees identified duty of care as having a dual purpose of process and defining rules, as summarised in Table 3.3. As a process, it is

said to 'define social values about farming and environmental protection' (DPI3), (a virtue perception), or be 'a process to step through your management actions and anticipate what will be the ramifications so as not to have a negative impact' (RA3), (accountability). The duty of care converted to rules reflects accountability as 'the minimum specified standards of performance' (L5), which may be 'from peer pressure through ridicule or formally from regulation' (F1). Rules might also reflect virtue where 'a person should not breach the property rights of others including the public interest in the general environment' (DPI2).

Table 3.3: Number of interviewees identifying the duty of care as a process or as rules

Stakeholder type	**The duty of care as a Process**	**The duty of care as Rules**	**The duty of care as a Process and Rules**
Information Provider	2	2	1
Fund Provider	2		
Resource Provider	4		
Regulator	2		
Conservation Political Lobbyist		1	
Farming Political Lobbyist	2	1	
Farmers	2	1	
Lawyers	2	1	2
Total Responses (Three interviewees did not offer an answer)	**16**	**6**	**3**

The benefit of a duty of care to evolve with the needs and norms of the community is reflected in the idea of; 'a set of rules that evolves and continues to evolve through a process' (L3) or 'at any point in time it's a set of rules but those exist in light of the social call, a process for further developing and refining rules to better reflect what the public is thinking' (DPI1). From the examples above, the dual use of the term reflects a reasonable care version of a duty for accountability, alongside a virtue use that reflects stewardship concerns defined by public good.

Summary: The interviewee perceptions of what a duty of care is reinforce the multiple meaning that is evidenced by the literature review. This highlights the tensions between accountability and virtue that are masked by the words 'duty of care'. The more frequent occurrence of virtue conceptions suggests a dominant understanding of a duty of care that defines responsibilities in a virtuous way that links private access and use rights to public environmental protection concerns. The implications of that conception are examined in the next section.

Q1b: What conflicts about farming and environment might a Duty of Care relate to? How might it be used to make a difference in situations where these conflicts arise?

Expectations from stakeholders about what a duty of care can do centre on two perspectives: first 'the minimum expectation for looking after the environment' (RA2); and, secondly, 'an aspiration to lift environmental performance' (ECC3). The latter is a positive stewardship expectation.

Farmers interviewed saw the duty as a process for defining long-term responsibility to the community: a stewardship target to raise environmental performance, expressed as 'an ethos to do the right thing' (F2), 'providing better performance for the common good' (F1) and 'fostering change for a good attitude towards the environment' (F3). This incorporates standards of performance from existing statute or rules,[167] and regional plans:[168] 'There's plenty of expectations in the Water Act and Native Veg. Act obviously, as well as things like Water Sharing Plans and Land and Water Management Plans' (F1). These interviews suggest a more positive perspective by farmers on the value of a duty of care in strengthening stewardship than is suggested in the literature. However, as noted earlier this is not presented as statistically representative of farmers as a group.

Regulators saw the duty as, 'an industry-led process for improving performance beyond mandatory minimum standards' (ECC1). This is achieved by 'setting outcomes that allow farmers to make their own adjustment on their property' (ECC2), which helps to 'achieve environmental stewardship policy aspirations when coupled with economic incentives' (ECC3). Funding providers noted that duty of care is a process for agreeing reasonable impacts of farming upon the environment that also articulates the performance standard: 'What we're really looking to do is to come to some negotiated understanding as to what an acceptable level of external impact there is resulting from private activity on private land, and negotiating the allocation of resources to manage that' (AFF1). 'Governments can't fund something that has private return, unless there's a specific and broader community interest served by it. The duty of care defines that reasonable level of environmental protection and stewardship' (EW1, EW2) and 'it's a target against which landholders can manage their activities' (AFF1). Such government perspectives reflect the political role of a duty of care concept, as a framework for negotiation of boundaries of responsibility. Whilst valuable, this function of the duty is not reflected in the way that the laws have been drafted.

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167 For example water access and use requirements associated with the *Water Act* 1912 (NSW) and *Water Management Act* 2000 (NSW) or rules associated with a private water access agreement between a farmer and an irrigation water company such as Murrumbidgee Irrigation or Murray Irrigation Limited.

168 For example, regional land and water management plans that exist for the Coleambally, Murrumbidgee and Murray Irrigation Areas and Districts. A higher level (broader) regional plan is provided by the Catchment Action Plans developed by Catchment Management Authorities in NSW.

Some government agency employees highlight the duty as a focus for policy debate and to coordinate action across government agencies 'to figure out what is achievable in terms of reducing the impact on the environment and recognising that there are benefits that come from agriculture for the whole community' (ECC1). This has limited practical use for farmers because to define for each case, each farmer, what level of outcome you're after, and define for each farmer what management standard you want for that is just too big an ask. Can you think how you would go out and actually ensure that the duty of care is being kept? The compliance side would be horrendous' (ECC2).

Irrigation water providers identify the duty as an accepted point of reference, 'reducing the risk of conflict by providing knowledge and information that's unbiased and is supported by a range of people' (MIL2). This is 'a clear and consistent interpretation of what a duty of care means' (MIL1) for farmer responsibility in debate, policy formulation and regulation. Information providers agree that the duty of care is a focus for agreement about resource access and use. This is defining, refining and elaborating standards of responsible behaviour to neighbours, functioning ecosystems and future generations (LW1, DPI3). 'These are often contained in land and water management plans, industry based environmental performance guides or catchment plans' (CMA1).[169] These views are consistent with the role of a duty of care as crystallising specific rules and obligations, facilitating the freedom to exploit private property interests bounded only by well-specified rules.

A political and normative function for the duty of care amid this uncertainty may be to focus debate on what a community interest in the environment means for farm practice: 'helping to place production in a total environment context of ecological capacity to produce' (L2). Irrigation water providers agree that the duty of care may have value to prompt environmental impact assessment and management by farmers: 'It's to understand that the landscape and ecology on your property provide a service through healthy soils, air and water that keeps you in production; and to then have the ability to implement measures that can avoid, offset or mitigate any impact' (MI2).

The farm lobby asserts that a duty of care ought to only provide a minimum definition of responsibility in relation to the environment and natural resources, otherwise 'there's an absolute conflict between economic utilisation of resources and required conservation of natural resources' (AFI1). For example, threatened species and particularly the Plains Wanderer:[170]

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169 These are the Irrigation Area Land and Water Management Plans, such as Murrumbidgee, Coleambally, Denimein, Berriquin and Wakool, and industry initiatives such as 'Rice Environmental Champions', see Ricegrowers' Association of Australia, *Environmental Champions Program Structure* (2006) <http://esvc000142.wic040u.server-web.com/about_ecp/program_structure.htm> at 7 August 2009.

170 The plains wanderer is listed as an endangered species under *Threatened Species Conservation Act 1995* (NSW) and

> …what has happened with legal protection of this bird isn't necessarily relevant to what's actually happening on the ground. The National Parks and Wildlife Service came around and selected certain areas of land as being potential habitat for Plains Wanderer, so you then weren't allowed to do specific things with your property in those areas. But the habitat wasn't necessarily there and landholders just couldn't understand why they weren't allowed to do certain things when they knew that the bird would not occur there. Alternately you've got the Catchment Management Authority encouraging farmers to provide the right habitat for that bird, and giving incentives to help. That's quite a different approach, but much more likely to get a cooperative response.' (RA1)

Following this example, an effective duty of care 'involves farmers understanding the issues, like threatened species habitat, and why they should be doing something, it fosters action by providing ownership and understanding of the issues' (RA1). But 'it needs to be coupled with financial incentives for any change to go beyond minimum environmental performance standards' (RA2). Under this conception the duty of care is to comply with specific guidelines, and stewardship beyond this is not a matter of accountability. It is a matter of negotiated purchase of a land use service, or a payment for non-use.

The conservation lobby emphasise 'existing regulated environmental protection limits as a minimum standard, with a duty of care providing a process to refine and change farm management practice to link with broader ecological outcomes and achieve good stewardship' (ACF1, ACF2). This uses regulation and a duty of care in tandem to advance sustainability standards as a legal obligation, where regulation provides the minimum requirements and a duty of care provides proactive stewardship beyond those. For example, 'with water management and vegetation conservation on floodplains there is probably some real potential to apply a duty of care to look at broader best practice and establish your level of management and if that's sufficient to maintain reasonable biodiversity qualities' (IRN1).

Some lawyers interviewed suggested that a duty of care may, necessarily, be very narrow in its application for technical legal reasons. This is because the environment does not hold 'rights' that can be protected from harm by a duty. 'We haven't set up that sort of eco centric system. With a duty of care you're actually only looking at the impacts on another person, and that makes it difficult to talk about the range of impacts that farming has on the environment in the context of a duty of care' (L1). For example, this obligation to others in society means that 'when it comes to a duty of care and land, farmers probably view their land in isolation and probably don't have an appreciation

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as a vulnerable species under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). A draft recovery plan exists for the species in NSW and nationally. See Department of the Environment, Water, Heritage and the Arts., *Pedionomus torquatus - Plains Wanderer in Species Profile and Threats Database* (2009) <http://www.environment.gov.au/sprat.> at 28 October 2009.

of the fact that what they do on their land may well impact on surrounding properties, ecosystems and environments' (L2). This was contrasted with the policy intention to embed environmental sensitivity into farm management by 'moderating a person's behaviour so that they don't take their own self interest over neighbourhood, community or society's interest in a healthy environment' (L3). This broader duty may expand beyond an obligation to a person here and now,

> First there is a duty to neighbours as they might be reasonably affected by something you do on your land. Now they can be literal neighbours or they can be people down the catchment, or somehow connected to your field. Then there's a duty that goes between your generation and the next, some responsibility not to leave the ground polluted, or blown away or any of those things beyond the responsibility you've got for maintaining the land value. Then there's a responsibility to maintain production potential into the future. Then you've also got the responsibility to nature and functioning ecosystems. That's a responsibility to biodiversity and the plants that grow there. It brings a responsibility to show that any destruction done in the knowledge of what's being lost and what's gained, a process of consideration. (LWA1)

The legal tension is that,

> The environment, in its purer sense, is not a commercial interest however, we as a community have a very great interest in the environment and making sure it's as pristine as it can possibly be. But we have to allow people to conduct a business and there's a really grey area at that interface. (L3)

Summary: Different stakeholders have competing perceptions of what will be achieved by using a duty of care, ranging from compliance with minimal environmental protection requirements to lifting performance to a stewardship level of farm management. There are also doubts about the practical effectiveness of a duty of care at all, emphasising its role as a focus for policy debate and formulation. These reinforce the complexity of multiple meanings and differences that may also be a source of conflict between interests. To the extent that any consensus about the function of a legal duty of care can be distilled from the views expressed, it is that a duty of care is an appropriate focus for negotiation of farm management practice, taking into account a diversity of interests and issues. In this the concept of a duty of care as a process for forming norms is well reflected. The difficulties that are apparent are in translating the large gaps in expectation and understanding into legally defensible decisions.

Q1c: For the situations where a duty of care might be used, how do you think it might alter the outcome, or the process through which the outcome is realised?

Interviewees highlighted that the greatest potential for a duty of care to make a difference was its process for clarifying boundaries of responsibility and providing a standard of performance. Clarifying boundaries occurs through a process of dispute and resolution that results in greater certainty about expectations:

> It's a process for initiating conflict, and that should be embraced because conflict actually raises issues, it teases issues out. So to raise the debate is extremely important, because if the debate isn't had, then nothing changes. I think that most people are sympathetic to farmers: their right to make a living and to get on with their lives. But at the same time there are changing expectations, and a change in values. We no longer value clearing the land to make way for sheep and wheat, and we no longer value regulating the river systems to open up the area to rice and fruit. So as a process, not just for managing conflict but for initiating and carrying through conflict it is actually quite powerful. (ACF1, ACF2)

These views emphasise processes of debate and agreement, as a means to close the normative gap between different stakeholder interests. This challenges people about the meaning of responsible performance in view of expectations: 'Duty of care is like a concept cluster, so that challenges people to articulate, to justify, and to explain in a way that is able to change with the times and the public perception, and scientific knowledge' (LW1). It 'forces people to think about why they want to do something, what outcome they want to achieve' (MIL1), as well as 'challenging governments to specify the broad objectives they feel that communities want' (DPI1). The duty of care as a resolution process is a way to pull together social licence expectations (ECC3), risk assessment (MI2), and changing standards of performance (DPI1), to provide ongoing justification for resource access and use by farmers,[171]

> With water, irrigators have really had to keep justifying their use of water. They have to continually prove that they are using water properly, within licence requirements and within water quality standards so that drainage water is not contaminated. (DPI2)

For those who advocate the duty of care as a means to streamline accountability, greater certainty is anticipated to bring greater potential for investment and remuneration as undefined expectations of farmer accountability are defined and specified:

> If you really want to be serious about farmers investing substantial resources in infrastructure for irrigation, then they have to know what exactly it is that they own in terms of being able to utilise it. There's some pay-offs more generally to the community if we know those rights are a bit more secure. And they relate to propensity to invest, propensity to upgrade, propensity to trade and propensity to have secure water for the environment. (AFI1)

> A duty of care might make a difference by allowing you to structure your whole business a lot differently because you could see that there was a reward and a need for a longer term view. At the moment there's no incentive from the public and there's no recognition either from the public to do anything other than manage in the short term to make a profit.(F3)

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[171] The value of the duty of care here is the process of social learning by the development of norms through repeated conflict and debate. The administrative implementation of statutory duties described in Chapter 1 as administrative determination in specific cases, makes it unlikely that such a duty can contribute to social norm creation through negotiation.

> The duty of care by itself is a bit like a speed limit on the road, it doesn't really guarantee good driving. But if you can put some incentive in front and drag the industry up, then I think you can use that duty of care as the other component of improving natural resource management. (AFI1)

How a process of resolution using a duty of care may make a difference also depends on the standard used to measure performance: 'This is the difference between a process that defines a minimum standard from the role of trying to improve or maintain higher values, or higher standards of environmental management' (AFI1).

Opinions differ about what form the standard should take. The minimum standard is a benchmark from which change is encouraged: 'An incentive programme and recognition of environmental services, and payment for that requires some minimum standard, a duty of care, to establish a baseline for the sector' (AFI1). A higher level standard is anticipated to integrate environmental impact assessment with farming (MI2) and create space to lift environmental performance as part of market access requirements (EW1, EW2). However a problem with higher standards is

> …massive variation in the characteristics of farmers and farms. So what's best practice for the top end can't reasonably be expected to be adopted as best practice by the lower end. In the sense of extension, we can't force people to adopt the best, and it won't be efficient for many to adopt the best. It's just not in the interests of some people to do that. Capital costs might be too high relative to the scale of operations, or some farmers may have different objectives to just pure technical and economic efficiency. That's all quite reasonable, they just have quite legitimate, alternative objectives. (DPI2)

Summary: Interviewees perceive the greatest contribution for a duty of care would be as a process for clarifying boundaries of responsibility and providing an associated standard of performance. The process could challenge different interests to articulate and justify their expectations and resolve what responsibilities should be. This would in effect bring together social licence expectations, risk assessment, and changing standards of performance to provide ongoing justification for resource access and use. What all responses reflect is the recognition that there is no socially accepted standard against which to judge stewardship performance. All reflect the desirability of a process through which such standards can be refined and agreed. Most (other than lawyers) believe that creation of a legal duty of care can contribute to this process of social negotiation and resolution.

Q1d: What are the types of challenge that exist in trying to make Duty of Care work; for farmers, for government, and for the courts?

Interviewees identify that a duty of care for the environment is likely to face social, technical and institutional obstacles. Such a range of obstacles introduces the significant difficulty in establishing a clear standard of reasonable care or proving a breach. The legal concerns with these issues are highlighted by the experimental moot and are discussed in Chapter 4.

(a) Social hurdles

A common law duty of care is based on judicial determination of accepted social norms and standards. Entrenched views and a lack of social consensus were identified by interviewees as obstacles to effective use of a duty of care. This includes the,

> …misconception within the community that farmers don't care for the environment, and don't care for their land. In my experience as a lawyer, that's just simply not the case. By far the majority of farmers are concerned about their environment, concerned about their land because they realise that being involved in any kind of rural enterprise should be seen as a business. And if you approach the land as being part of your business then you view the land as being important, something that has to be appreciated, and something that has to be cared for. So that misconception within the community, of farmers not caring for the land, I just think is a misplaced and uninformed conception about the way farmers actually conduct their business. (L2)

Another entrenched view is farmers' distrust of environmental restrictions as a threat to their viability (ECC1):

> If you look outside this rural setting, and if you're in a city and you talked about duty of care of landholders, it's very clear. You can't do a lot of things. And you have to behave in a whole lot of ways that are socially and environmentally convivial. Rural landholders have had a real holiday culturally and ideologically have been able to define their land obligations and rights very narrowly.' (EW1, EW2)

There was a broad sense that urban conservationist standards of care for the environment are significantly different to those applied in practice (or accepted as reasonable) by the rural farming community. This suggests substantial opportunities for disagreement over the legitimacy of whatever standard is applied by administrators or the courts. Causation and history compound these difficultues.

Past rules, policies and practices have contributed to degradation of natural resources:

> Whether or not the depth of the groundwater table, which can cause salinity problems, is the fault of the grower, or his grandfather or his (great-)grandfather. Or is it the fault of legislation at the time that required people to cut down trees. So from the moment people walked onto the land and started farming with government rules at the time, and their bright ideas, all has to do with where the land is today. I don't think you'll ever be able to work out ultimately who was at fault. It's a combination of generations of farming, and generations of legislation. (MI1)

Acceptance and understanding of the need to change practices and/or management approach is another social obstacle. Business survival is a part of this as highlighted by one farmer, 'you need huge financial resources and profit. If you're not making a profit you can't do the right thing' (F2). A desire to survive as a farmer and make a living might override a desire to do the right thing for environmental protection. A situation complicated because,

> …there's so much legislation that impacts on farmers. And they haven't got a hope of understanding what their duties and obligations are. As a sector it's over-regulated and under-policed. So we've got all this feel-good legislation out there and because it's not policed, farmers know nothing about it. And because farmers know nothing about it they continue on their merry path of doing what they believe is best for their particular business. And what is best for their particular business may be creating environmental problems. (L2)

> (This) is the competition between the economic and environmental interest. There's no doubt that farming, *per se,* is a non-natural activity in Australia, it's inherently starting off as being an adverse impact. The question is trying to determine just how far farming can go. And as a matter of logic that means just how much environmental impact our society's prepared to accept before it says too much. (L3)

(b) Technical hurdles

The political appeal of a duty of care to the environment to various interests lies in the emphasis on reasonableness. Application of the duty will require a specific determination of what is reasonable in particular circumstances. The views expressed in the interviews suggest some difficulties in making this determination. Coupled with this are a substantial number of technical impediments to demonstrating breach of a duty and causation of harm to a legally accepted standard. A significant part of the problem is that sustainability is about complex systems, whereas legal responsibility attaches to particular identified issues at a defined point in time.

Recognising the tension between economic and environmental outcomes and defining the accepted level of trade-off is recognised as a role for government:

> If governments are simply the mouthpiece of our society, then somehow they have to work out how much our society will tolerate the adverse impacts of farming. That's what governments are supposed to do, and farmers need to understand where the line is. And it's grey. (L3)

A related technical problem is measuring performance and establishing the baseline from which to measure a change. For example, one regulator uses modelling to predict the effects of farm practice on broader natural resource management targets:

> The outcomes of changing on farm actions are a long way into the future. We can only predict what we hope will happen. We don't actually know what will happen. (ECC1)

It would be very difficult to use such models to specify practices that generate a particular environmental outcome: 'Even where we have agreement around natural resource management

actions, we still don't agree on what the outcome is likely to be' (ECC1). For example, connecting farm management actions to desired environmental outcomes such as water quality is technically difficult, with the problem of proving the particular activity that degrades water quality and linking that to particular practices or farmers:

> They would have trouble finding out what or whose management decision has changed to cause the secondary environmental impact. I think there is likely to be a problem linking particular actions to particular downstream impacts because there can be a lot of external factors that could influence. (RA3)

> It's challenging to legally back natural resource management because there's just such a broad diversity of views and issues, and a whole range of things that mathematics and science often can't explain. Try and explain mathematically what biodiversity is, you just can't do it. You know, speeding is easy. You were travelling six kilometres over the limit and you had this impact. We can write these sorts of things down and it makes sense. (MIL1)

Reasonableness is also about foresight and risk. Defining an acceptable risk is often a best guess for environmental impacts. For example:

> …clearing this vegetation will cause this extinction. These are hard things to prove, you're dealing with things that involve risk and uncertainty, it's very hard to stand firmly on a particular viewpoint, and not accept that it is too heavily contingent on whether it's the last stand of habitat or whether it's one of many. These are all important things to know. You're making a judgement about the impact, but it's very hard information to get. And it's always going to be uncertain. And the costs are huge. Like putting vegetation back the way it was, probably impossible or certainly very expensive. Bring back a species after it's been made extinct, no hope. So you've got uncertainty, you've got risk, you've got enormous costs. (LW1)

The focus for a duty of care on private interests requires consideration of the effect of individual actions, when these are only one part of a collective impact on an ecosystem. In these circumstances preventing predicted harm to an ecosystem may require significant coordinated change by a number of individual farmers across an area. Some interviewees highlighted the difficulty that this may pose when considering individual legal responsibilities. For example, 'with water this involves providing an adequate flow regime for rivers and wetlands' (ACF1, ACF2). A focus on best management practice may also prove inadequate 'as it does not address the need for change away from annual cropping and grazing systems that cumulatively generate many of the natural resource degradation problems' (ACF1, ACF2).

Lawyers interviewed provided a different view about the obstacles to applying a duty of care. The adversarial approach of a civil law process is an overarching practical concern: 'It fosters boundary pushing behaviour focussed on what is possible to get away with up to the point of breach, rather than staying as far away from the breach boundary as possible' (L1).

> Conventionally, the area of tort and negligence, from which the duty of care idea is drawn, is very anthropocentric. A duty of care is conventionally owed to another person. You don't find cases where the duty is owed to another species or a landscape. (L3)

Such protection of private rights reinforces an ability to take rather than ability to care based on community or ecological constraints. (L1, L4)

Developing a viable legal standard out of the abstract principles of a duty is challenging due to the difficulty in determining how general principles apply to establish a standard of reasonable practice for a particular farming situation, and what practices will demonstrate a failure to satisfy that standard (L1, L3):

> Although you have a set of abstract principles, there is a lot of room for different people to disagree about how that applies to a particular situation and what measures will actually succeed to achieve the desired end. So, everyone agrees that erosion should be controlled. And one person will say well, this is how you control erosion, and another will say no it won't! And you only really know ten years later when you can actually measure an outcome. Those questions of what and why you would probably call detail. They are the real problem of practical application to the land. (L4)

There is also potential for difficulties in tracing legal accountability for an individual contribution to cumulative impacts on the landscape:

> So if, for example, you have a fish kill that's probably because of the impact of a large number of farms' run-off into the water: how do you look at individual duty of care there? It's not something so simple. Again with water use and water allocation, if you look at an individual's duty of care to look at what they need rather than what their right is, that one individual may go beyond what they need but how do you show that was a breach of some duty when there's a whole lot of people using what their rights are to take water, and having a significant impact on landscape systems, on the trees through salinity. (L1)

Diversity of farming systems across regions further complicates resolution of these issues. This may be exacerbated by jurisdictional differences with different obligations upon farmers. (L2. L5)

(c) Institutional hurdles

Interviewee comments about institutional issues reflect the types of challenges discussed in Chapter 2. At the heart of the difficulties is the fact that legal institutions are necessarily technical and precise even when apparently considering such abstract issues as responsibility, reasonableness and causation. Arguments and conclusions that may be sufficient for the purpose of policy debate or social consensus may be an insufficient basis for an administrative or judicial determination that infringes upon a persons freedom to exploit what they own.

The interviews reflect a lack of clear and legally defined public benefit or stewardship responsibilities for farming. If a statutory duty of care does need to be defined by a court (through challenges to administrative decisions or claims for compensation) then the courts will be institutionally preconditioned to take a conservative rather than an expansive stance.

In anticipation of what might happen if a statutory duty did have to be clarified in court; regulators identified that an unclear policy framework produces unclear statute, (ECC2, EW1, EW2, ECC3):

> The articulation of policy and the conversion of that policy into a clear legislative framework is a lot more difficult that people perceive. If you get the policy right and your laws are clear, then the role of the courts should be one of: have you transgressed the baseline duty. I've currently got a matter in the Supreme Court where, using the farmer exit assistance package for native vegetation, we offered to purchase someone's property because they had been adversely affected. They've taken out an injunction against us, they've claimed unconscionable conduct,[172] and run up a list of things. It took the judge the first day and a half to actually try and work out what the case against us was, because they just threw up a great list of things and we're now, through the court process, defining the successful strategies out of the half dozen or so they threw up. So I think the courts are a horrible place to try and define any of this stuff. And really I don't think it adds to policy improvement at all. I think it speaks only to the quality of the legislative drafting rather than the quality of policy. (ECC3)

Many interviewees anticipate difficulties in reflecting the dynamics of natural resource systems in black and white terms (F1, DPI1, MI1, MIL2).

> The real difficulty is that nothing in nature is black and white. Law only works in black and white, and definition of meaning, and I think it's very difficult to translate things that are in nature into black and white terms. I think that's why there haven't been many successful prosecutions for clearing native vegetation, because there are so many grey areas. And part of that would be the way the legislation is written, because it's difficult to define things in black and white, both in legislation and then for the courts to interpret that legislation. (F1)

There are also concerns expressed with effectiveness of a duty of care due to rules of standing and evidence and the capacity and experience of individuals to deal with natural resource management in court:

> Courts are restricted to relying on precedent, and restricted by certain rules as well about what can be presented and what can't. So sometimes the whole story and all the facts aren't presented. And people in the courts, they're humans, not machines, so they have preconceived ideas and influences of their past. Their likes and experience until that point influences their opinions and what they think. (DPI2)

Concerns also exist about ineffective enforcement of statute by government administrative officers (AFI1, DPI2). Jurisdictional boundaries were raised as an institutional concern for natural resource management because different jurisdictions apply different standards (L2, L5, EW1, EW2). This has both legal and economic implications:

> If you want to rely on a duty of care it has to be uniform. It's really hard to incorporate additional costs into the price of your produce if you're competing against people who aren't experiencing the same level of regulation.(EW1, EW2)

Overcoming hurdles

Interviewees were invited to suggest ways in which the challenges they had identified might be overcome. The recurrent pattern in the responses was to propose far greater specificity for the duty,

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[172] Under the *Corporations Act* 2001 (Cth), above, n 3.

in effect translating it from a process for evolving norm formation into a detailed code. Referring back to some of the motivations for using a duty of care rather than extensive codification of detailed rules (see Chapter 2), this raises questions about the extent of gains which might be realised in practice from a legislated duty of care if, in order to make it practicable it must be supported by detailed codes, standards and government monitoring.

Specifying the duty of care so that obligations are clear to farmers suggests that the duty of care is most likely to operate as a minimal standard:

> Let's define some processes as being compliant with a duty of care, and that might be a best management practice or some other standards that actually define some of the processes anticipated as part of the duty of care. They're okay for establishing a bare minimum standard that you might want to do something about in a punitive sense. But in terms of achieving improvements or more sustainable resource use, they don't achieve much. At best they set a minimum standard. They'll never set an aspirational standard, and I think farmers and resource managers have an interest in moving to a more aspirational or improved level. (AFI1)

Interviewees suggested a range of actions to address social, technical and institutional concerns, listed in Table 3.4. Such measures imply that the pathway to an effective duty of care involves increasing the ability to care through further reform of policy mechanisms, supported by information, structural adjustment and knowledge about systems (ECC3). This implies a cooperative approach to enforcement.

Table 3.4: Interviewee suggestions for achieving a meaningful farmers' duty of care

Category of Hurdles	Required actions
Social	(i) Link implementation and first instance accountability to a peer group for motivation and momentum. (F3, RA2) (ii) Use existing networks to provide information, build knowledge about obligations and understanding of what it means. (CMA1) (iii) Establish the value of ecosystem services to a community.(EW1, EW2) (iv) Government acknowledgement of past degradation attributable to policy and rules. (EW1, EW2) (v) Community driven enunciation of the social value of farming integrated into policy. (LW1) (vi) Educate about the risks of non compliance.(MIL2, MI2)
Technical	(i) Implement the duty as a farm plan with measurable targets for improvement. (F1) (ii) Industry codes of practice can provide relevant guidance. (RA2) (iii) Use ecological constraint as a guiding principle and have a standard of performance based on intergenerational equity. (L1) (iv) Information that is extended to people so they understand it, so that it becomes common knowledge, and from there can be effectively managed as common practice. (MI2, DPI3) (v) Ensure data used to monitor performance and achievement of broader targets is credible and unbiased. (MIL2)
Institutional	(i) General collective duty of care codified. (EW1, EW2). (ii) Detailed individual obligations in a contract or management agreement. (RA1) (iii) Specified framework of rules to make it clear for the courts how standard practice is determined. (RA3) (iv) Introduce rights for the environment, actionable by a guardian. (L1) (v) Incorporate existing obligations rather than being an addition. (L5)

Category of Hurdles	Required actions
	(vi) Frame general definitions in terms of the elements of a duty of care to enhance their practical use. (IRN1) (vii) Use targeted incentives to encourage improvement and back up the regulation. (ECC1)

The recommendations suggest a desire for greater specificity, in the absence of consensus about standards of environmental responsibility.

Potential Content for a Duty of Care

The second group of questions sought views on the content of a farmer's environmental obligations. This issue would be the core of an administrative or judicial determination of the standard against which a possible breach of the duty would be considered. This issue inevitably involves consideration of both moral and practical norms (including specific legal requirements).

Q2a: What responsibilities do farmers have as a group in relation to soil, water, vegetation and ecosystem management? What are the boundaries (or extent) of these responsibilities? To whom or what are these responsibilities owed

What responsibilities do farmers have as a group in relation to soil, water, vegetation and ecosystem management?

The stakeholder views about farmers' responsibility were expressed in two ways. First is a general expectation to comply with rules as a minimum level of accountability: 'Responsibility is ultimately owed to the community as expressed through the standard set by political processes' (AFI1). These include legal obligations (statutory, common law and contractual), land and water management plan requirements and irrigation company rules (F1, L1, L2, ECC1, DPI1, LW1, RA1, ECC2, MIL2, ACF1, ACF2). Society is potentially an enabler of such compliance 'by providing incentives and clear signals about expected performance through political processes' (LW1).

Figure 3.1 represents the variety of views from stakeholder interviews reflecting this expectation of virtuous behaviour.

These virtue aspirations suggest that the dimensions of a farmer's duty of care may be:

(i) To be efficient (careful, best practice, productive);
(ii) To manage the land to preserve its values for future generations;
(iii) To be morally decent, a good citizen; and/or
(iv) To manage with a strong sense of environmental and social obligation.

One interviewee suggested that the principle function of such morally sounding obligations 'is to provide a clear conscience when the farmer hangs up the shovel' (F1). This has elements of responsibility for direct impact and responsibility for larger systems.

The potential for direct impacts brings an expectation of responsibility to neighbours, 'those you might cause significant, adverse and provable impact (on)' (L3), which could also be interpreted as the local community (F1, L2, AFI1, ECC1, RA3) or downstream community (ECC3, ACF1. ACF2): 'people in some kind of proximity who are being impacted upon and can reasonably prove who is doing it' (DPI2). Direct responsibility may also include to 'the land and its associated ecosystems' (MI1). A farmer's responsibility, is to take only what is needed and be mindful of its effect on habitat, effect on run off, effect on soil:

> I don't think they've got any scope for leaving soil worse off; structurally, chemically or biologically, after their practices. A farmer has a responsibility to record the balance sheet for their operation. So they've got some obligation to record the state of the soil when they arrive, record the state of vegetation when they arrive, and be accountable for the way it is when they leave. (LW1)
>
> At the very least an obligation to maintain and preserve what they've got on their farm, maintain what you've inherited. Ideally, make improvements and certainly don't let it get any worse. (MIL1)

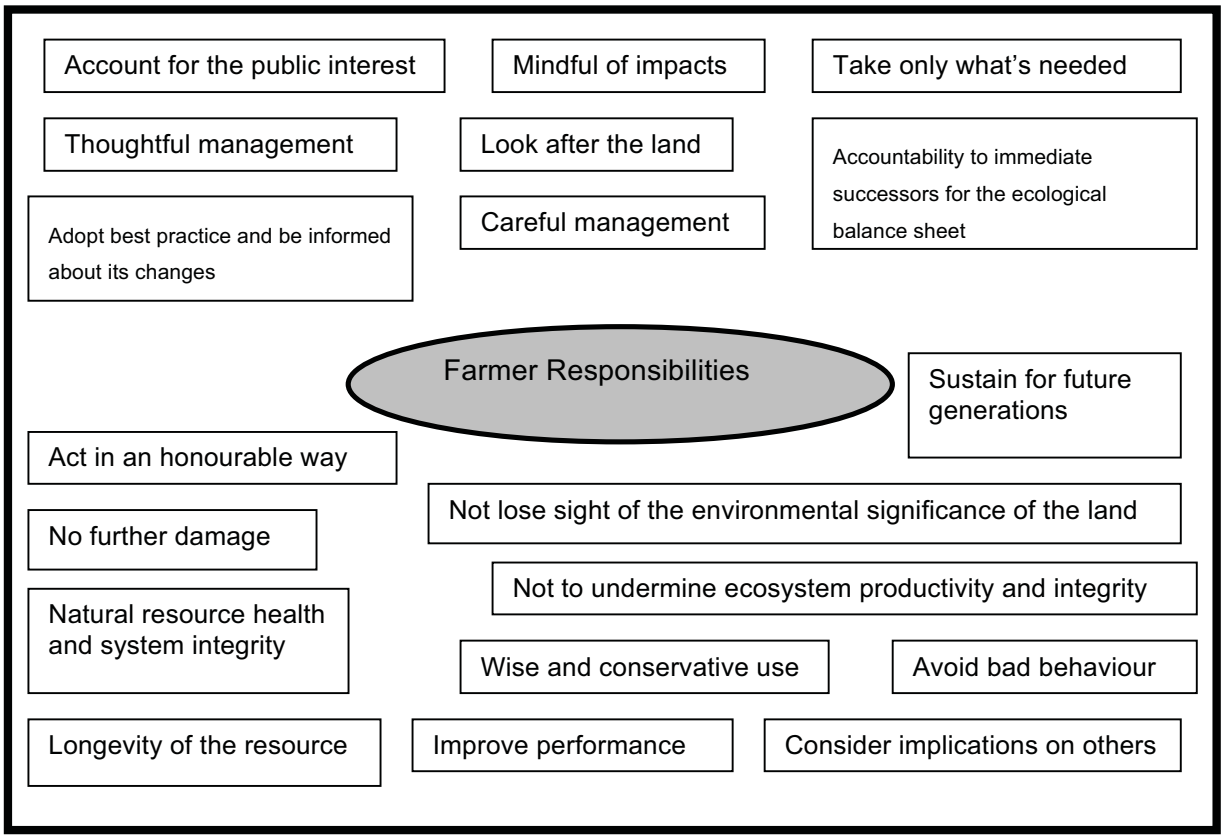

Figure 3.1: Moral expectations about farmers' natural resource management

Interviewees also identify responsibility of farmers to society for maintaining the integrity of landscape systems. This is a responsibility,

> …to account for large-scale and long time periods, or cumulative impacts. Not to undermine the productivity of the ecosystem which they operate for their own and neighbours' benefits. (ACF1, ACF2)

This is linked to ensuring 'the long term productive capacity of the resource' (AFI1), and also to promote the integrity of larger systems: 'Farmers as the people that own the land definitely have a responsibility to ensure that they look after the land and all associated with the ecosystems that are there' (MI1). What is uncertain is 'how to pull that larger responsibility down to actions and activities of individuals on the ground in a meaningful way' (ACF1, ACF2). A possibility may arise through the market, since 'consumers are becoming more aware of the environmental aspects of producing food and they're putting pressure on producers to demonstrate that they're environmentally smart' (MI2).

The boundary between the responsibility of the farmer and society for protection and conservation of the land is not clear. This lack of consensus is reflected in views about whether (or when) farmers ought to be paid for their environmental contributions. Some interviewees suggest that the broader community has obligations to assist farmers by providing incentives to assist with change:

> Farmers do have a responsibility, but they don't have all the responsibility. Most of the community want the benefit and a lot of regulators are saying what should happen. The poor old farmer, really just wants so to make a living. So he should have some responsibility, but not bear all the cost. (DPI3)
>
> Society should support the farmers that are identifying opportunities for improvement, thinking about ways of reducing impact or increasing productivity without degrading the resource. (LW1)
>
> In order to get the sort of outcomes society wants as far as biodiversity and water quality, there does need to be investment via measures such as Catchment Management Authority incentives. (ECC2)
>
> We, as a society, have a responsibility to enable them to do that. (ACF1, ACF2)

Not all stakeholders agree that the community should fund improvements to farmers' private proprietary interests: 'Their boundaries of responsibility pertain to their own land and to impacts being felt elsewhere, to which they are contributing. Dealing with this is really just a cost of doing business' (L5). A funding model that was proposed would be for consumers to contribute a levy or premium for funding stewardship. 'Increasingly consumers are looking towards credence values' (ACF1, ACF2), and farmers are seeking consumer recognition for improved performance, 'the better we farm, the more we should be rewarded' (F3). This reflects a 'community notion that you have to be economically sustainable' (AFI1).

Responsibility to future generations (or successors in title) is an anthropocentric form of responsibility. This may fit better with traditional legal duties of care than ideas of responsibility focussed on the earth.[173] This is the responsibility 'I owe to my successors, my descendants, my inheritors because there is a commercial imperative' (AFI1). 'Farmers want to use their land in a way that's sustainable so they can keep it for future generations, a responsibility to manage their land in a way that they can pass it on'. (RA1)

What are the boundaries (or extent) of these responsibilities? To who or what are these responsibilities owed?

Some stakeholders limited farmers' responsibility as the extent of rules that they must follow, such as legislation, regulations and contractual obligations to an irrigation water provider. For example, rules from an irrigation water provider exist to help meet water access licence and environmental protection licence requirements. The connotation of this is that a farmer's accountability should be limited to specifically defined responsibilities:

> The company clearly wants to comply with its licences. To do that we need the cooperation of our farmers to use irrigation water responsibly, to mitigate salinity risk within our region and for downstream impacts of salt discharge, and not to discharge water that is going to cause water quality problems. We are totally reliant on our farmers' willingness to comply to meet these expectations. (MIL2)

Others recognise that the boundaries are difficult to establish: 'A farmer is not responsible for the neighbours' farm but they are responsible for larger things of which they are a part, such as a regional vegetation community or corridor or part of a regional groundwater system or catchment' (ACF1, ACF2). It is through such larger connected systems that responsibility goes beyond the farm boundary. Defining the extent of this was approached by causation of harm (a foresight test):

> In principle, if you could reasonably link the quality of drinking water in a particular city reservoir to actions within a particular sub catchment, then I think it reasonable that the relevant landholders are held responsible for the degradation. The boundary would be the limit of the biophysical impact that can be attributed back. (AFF1)

The boundary may vary between different resources, for example:

> …the farm boundary for soil, because if they're looking after it properly it's not going anywhere. Further for water because it's coming in from somewhere and usually it's going somewhere else after it leaves the farm. (DPI2)
>
> A sphere of influence would vary depending on these different items. From the community as a whole and more specifically to those people who could be potentially influenced by your actions, then for ecosystems, it's not to endanger a range of organisms. (RA2)

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[173] The dominant property rights paradigm is likely only to oblige that a viable economic business be handed to successors. This conflicts with ecologically sustainable development in the stewardship paradigm and its conception of obligations to future generations that include environmental aspects.

Applying a reasonable foresight approach implies understanding the effect of farm operations on natural resource systems. It means taking into account potential impacts on downstream communities and ecosystems:

> With water, for example, that's moving onto a farm where it is used for certain things and then it goes off the farm: the farmer should know what the water's like when it comes on and how it's changed when it goes off, but to actually know the implications for every bit of ecosystem far downstream is too much. (DPI3)
>
> The extent of everybody's responsibility is to do no harm. That is, to make a social contribution, make an economic contribution, do the minimum amount of environmental harm and try to use resources sustainably. (ECC3)[174]

This is inclusive of 'a responsibility to be aware of innovation in agricultural technology and best management practice, and adopt it where feasible' (ECC1).

Increasingly social and environmental performance is assessed against certification schemes operated by consumer or environmental groups, industry bodies or marketing channels. A market-based approach to responsibility favours a boundary defined by certified practice with an audit trail from the consumer back to the producer. This is where

> …consumers' perceptions of what's an acceptable practice in producing a product are driven back to the producer, with an audit trail to substantiate claims. So the consumer can buy with confidence that the produce was produced in a particular way. (F1)

For example 'now I have to take down what herbicides and insecticides I use on a particular paddock that can then be traced back into an animal, so if something goes wrong in Europe it can be traced back' (F2). This chain of responsibility could reinforce farmers' responsibility for the impacts of land management: 'eventually it'll get to the stage where you'll have to have a certification system to demonstrate sustainable practice otherwise you just won't be able to market your product to the marketplace' (F1). This is part of an approach that has valued agricultural production as part of the greater social good:

> In the past, a farmers' job was to produce goods for sale and wealth of the country as a whole. Now that includes sustainability. For example, the Fosters vineyard management guidelines specifically incorporate biodiversity conservation as part of a vineyard managers' core business. It creates a signal that I will be judged on this as part of my performance. It's a shift in the right direction. (ACF1, ACF2)
>
> I feel as though I'm responsible to the nation to produce as healthy and clean food as I can without destroying the environment. (F2)

Responses also highlighted the expectation that a farmer should run an economically viable business without degrading the resource base. 'Responsibility is to your own business to keep it as productive

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[174] The interviewee referred to 'sustainability in the Brundtland sense', meaning 'development that meets the needs of the future without compromising the ability of future generations to meet their own needs', see World Commission on Environment and Development, *Our Common Future* (1987) 43.

as possible.' (RA3) '(Farmers) have to do what is economically feasible and they take the risk. I don't think the public can actually contribute much to their risk mitigation.' (LW1) Managing risk also involves 'investigating the rules to the extent that the farmer thinks appropriate and taking the risk of not going far enough' (DPI1).

Farmers' responsibilities are often seen in terms of avoiding harm to someone (MI1, IR1, RA2). Most directly this is the individual neighbour: 'what one does on one farm certainly impacts on another farm and you need to be aware of that to understand that' (MI2). For vegetation, 'this is simple things like if you knock that bit over, that means the next door neighbour's four hectares that adjoins is not really as good a functioning ecosystem as it was before' (CMA1). But this also goes further to include affected communities and successors. 'This is about being able to explain why farming is important both locally and to other stakeholders that are either our immediate neighbours or governments who have a view about responsible irrigation'. (MIL2)

Thus boundaries of responsibility are interpreted in relation to people as harm to self, harm to neighbour, harm to the community interest or harm to future generations:

> As a matter of good farming practice, you need to be very aware that it's not just the person over the boundary that's going to be affected. That there are things that will go further than that and they will have an impact on not just the immediate neighbours, but the community. What they should do in this instance is just be mindful that their actions will have an impact that maybe no-one can sue for but that it will still be an adverse impact. (L3)

The focus in interviews for defining farmers' responsibility relative to harm to people or property reflects the dominant paradigm of a common law duty functioning to protect private rights, however the words used to describe the obligations seem to be stretching the responsibility to include stewardship obligations.

Summary: Responses to the boundary of responsibility question highlighted the polarity of views; from minimum accountability against specific requirements, through responsibility to neighbours (defined narrowly), responsibility to potentially affected people at varying levels of proximity to the farmer, responsibility to future generations, and finally responsibility to the environment. This represents a hierarchy of agreement with consensus that specific legal obligations fit within the boundary of environmental responsibility, but little consensus about what bounds of the potential duty should be. This suggests that attempts to use a duty of care to expand stewardship obligations beyond the existing obligations under regulation and tort will not be based on consensus. Extrapolation on the basis of reasonable foreseeability of harm to specific people would seem to be the most legally supportable extension of obligations under a legal duty of care.

Q2b: What is the standard that an irrigator ought to be judged against in terms of looking after soil, water, vegetation and eco-systems? Is there existing information or standards that might apply to judging performance? Is there a process for deciding the appropriate standard for a range of situations? How might a court decide what an appropriate standard of performance is?

This question sought indications of the measures of satisfaction (or non satisfaction) for a duty of care. It was focussed on irrigation farming as a specific illustration.

Sources of Standards

Catchment targets and water management plans were cited as a source of broad goals (FI1, AFF, RA1, MI1, ECC3): targets are 'the outcomes that form the basis for investment in actions at a catchment level. You let the farmers, through incentives work out what that means in terms of their level of management' (ECC2). 'There's no real goal as such set for individual properties, unless an individual landholder has set those himself.' (F1) A standard-setting process needs to provide an opportunity to put the broad goals into practice at the farm level. Rice Environmental Champions was provided as an example of an approach with farm level targets that meet broader rules:

> …it's building the capacity of land managers to actually know how to demonstrate what they're doing. And giving them an avenue and a support to actually figure out how you demonstrate some of those things. (RA2)

This quote illustrates the commonly reflected view that regional approaches are a way to develop practical meaning from broader state-wide or statutory requirements:

> The variability of natural resources and the variability of the environment and the way in which different commodity enterprises place requirements on the environment makes it very difficult administratively to get a single standard. And I think that's probably where legislation fails. (AFI1)

> The way that you manage your soil, water, vegetation and ecosystems depends on where you live, the sort of landscape you're dealing with and the history of that landscape; whether it's well developed, extensively cleared and intensively farmed or whether its developed in patches but there's still other patches which are relatively untouched. (RA1)

Regionally based plans can function to tailor broad targets to regional circumstances, making it easier to link targets with practical outcomes on farm:

> For example if you adopted a duty of care for cropping industries in New South Wales, you've got a range of environments, a range of soil types, a range of climates. You're going to end up with the lowest common denominator. Whereas, a more regional approach takes into account differences in soil type, climates, etc, then you don't just get the lowest common denominator. You've actually got something more meaningful. (ECC1)

Such tailoring is necessary to account for the different standards applicable to different scales, for example:

> I see a farmers' responsibility at the ecosystem end to be smaller than their responsibility at the soil end of the individual farm. They're going to be showing a lot more interest in managing soil, and have a higher duty of care standard there than at the ecosystem end because you can't really attribute their actions to ecosystem outcomes. And indeed science can't really with certainty say this thing is due to that action, whereas we can do pretty well with soils now. I think you end up with a lower duty of care at the ecosystem end than you do at the soils end. (LW1)

Industry should also be involved to further enhance the practicality of standards relevant to a particular enterprise and market access requirements:

> The most powerful driver is the consumer, such as through quality control, if countries won't allow the product to go in with certain chemicals in them. But I think we're going to see that more and more as standards will be raised. And not only residuals but how the product was managed, how the product was grown. Did you wipe out thousands of hectares of native vegetation to grow this particular product? and, if so, we don't want it. Send it to somewhere that doesn't care. But for the more affluent markets, particularly, they want to be able to have a say on how the product is produced. There are companies using that as a marketing tool already. Banrock Wines is probably a good example. How they're promoting their environmental credentials and selling their wine. So I think that has a potential to be much more powerful than any court or legislation because the industry will embrace it and the landholders will embrace it as well because of financial benefit. (F1)

There was widespread affirmation of the need for legal rules as a baseline; where farmers comply with the law for environmental protection (F1, F4, AFI1, AFF1, EW1, EW2, ECC2, DPI2, MI2). These general expectations are largely consistent with the views of legal practitioners, summarised in Box 3.1).

Box 3.1: Lawyers views about a standard-setting process

Generic statutory standards without practical context are not effective. Any standards would need to be specified in regulations, preferably specific to a region and without extensive exemptions for farming (L1). However such standards should also be dynamic to reflect the dynamics of natural resource management and farming systems. (L2)

A process for setting standards should include stakeholders and provide for a negotiated resolution so that the result allows commercial farming interests to continue with maximum possible protection of the environment. (L3)

The standard should also carry the status of an industry norm, being a sound commercial approach involving the exercise of responsibility. This reflects what the reasonable farmer would do and provides a basis for measuring performance. (L3)

Even though the Cotton BMP is a good example of an industry standard that works for farmers, it is deficient for native vegetation conservation and restoration, and unregulated or illegal structures in waterways, that continue to have a significant environmental impact. (L5)

A number of interviewees stressed the need for any standards that go beyond regulation to be developed through consultation. 'Regional circumstances, industry expertise and farmer experience should all be part of standard setting, having an agreed goal between stakeholders, then working out the standards of performance needed to get there, is an important element to practical success'

(CMA1). In addition to consultation and agreement, proposed standards should also be tested for practicality. This makes it more likely that standards will meet the rule requirements, be technically feasible and not difficult to implement on farm (RA1). For example, defining appropriate standards of performance depends on the issue and how attributable the impact is to the farmer's management skill. A farm water use target can be closely linked to an individual farmer's management over a season, but salinity mitigation is something that happens at a larger scale with action needed at a broader than the farm level. (MI1) Having relevant standards for the farmer means they must be relative to the farm scale.

> It's easy to have targets for sustainable production and a lower impact on the environment. Whether they're easily measurable or not, I think that is the issue. Can you actually make sense of it? What that target means and can you actually measure it. I would think you could have some key indicators, not so much targets, that you would probably want to work towards. (MI2)

> Everything is relative to the farm you purchase in the first place. For example, if you've got a depleted grassy box community, it's only got a few trees in it and bugger all understorey, we know what a good one looks like so benchmarking it to that is important for incentive reasons. So you actually would say, well if you're going to improve this, that's what we're aiming for. See that vegetation community over there. It's got logs and native grasses and shrubs, and it's healthy. That's a benchmark from a farmer's perspective. If I've just purchased a property or I'm managing a property, I think it's relative to that farm. You might take soil tests, pictures of trees, or an aerial photograph is taken so that no more trees are removed. There should be some basics there, so that if the farm is purchased in a pretty shitty state. It shouldn't get any shittier. So standards, in terms of enforcement with landholders or their obligations should be relative to the farm. (MIL1)

But standards are not enough. Farmers also need the capacity to keep evidence of their progress to demonstrate accountability in order to implement standards. Independent assessment of performance is an important part of the process for verification.

> For a farmer to be actually recognised for achieving a particular level of performance, they need to give us evidence, which is checked off externally. This helps build the capacity to demonstrate performance. And if you've demonstrated performance, collected evidence or monitored things, and put it forward to be recognised for what you've done, you are in a much better capacity to demonstrate that you were meeting a duty of care in the future. (RA2)

Standards need to be defendable, repeatable, reasonable and trustworthy; otherwise they will not be used. (MI1) These expectations of a collaborative process highlight complexity when the technical difficulties with establishing measurable standards of performance are also considered.

Information abounds about the direction that farm management should take for natural resource management and environmental protection: 'There's plenty of information out there about where your aims should be in terms of soil management or paddock management, water management or

native vegetation management' (MIL1). However a practical standard should specify key areas that a farmer should maintain and this often depends on relevance to a farmer's management practice. For example, a farm water use target can be closely linked to an individual farmer's irrigation management, but salinity is a cumulative impact attributable to many farmers' actions over a landscape through time. To avoid harm, standards of farm management for these issues will require specific management actions for each farm as well as standards of practice throughout a region. (MI1)

A court was viewed by stakeholders as the last resort (F1, EW1, EW2, MIL2, DPI3), called on to specify standards if industry approaches fail (ACF1, ACF2). It was noted that accepted practice and constantly changing standards pose challenges for the courts (CMA1).

Standard setting mechanisms

As noted, specific statutory standards are seen as the core of accountability obligations. These may be broad outcome-based measures or they may be specific operational requirements, such as water licence conditions. (DPI2) Statutory standards are already established for water access and use, chemical use, pest and weed management, and pollution. Codes of practice can be recognised under statute to form a co regulatory framework with industry.[175]

The Rice Environmental Champions Programme was cited to illustrate such a negotiated approach that could be recognised as a code demonstrating satisfaction of a duty of care:

> It is an example of what the industry sat down and collectively, with other agencies, identified what are the different standards of achievement. So the Champions programme hasn't developed a lot of those standards; they're already there. But they've embraced them. Everyone sat down, growers, irrigation companies, government departments, and others, and said, what are all the things that could be influencing you (the farmer), that you need to be aware of, and what are the existing standards? So say for level one, one of your benchmarks is that you've met your water licence agreement with your supplier. Incorporated in that is that you're growing crops on the right soils and you're not using too much water. (RA2)

In addition to industry or consumer codes, many responses cited regionally specific catchment management plans (and the resource condition targets therein) as an objective basis for performance standards within a region (AI1, MI1, CMA1, RA1, ACF1, ACF2). Such targets may help

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175 For example, Queensland Farmers Federation, above n 13.

farmers adjust their management actions (ECC2). A property-level planning tool for vegetation and biodiversity conservation (the Property Vegetation Plan Developer)[176] 'is used to assess the quality of vegetation there and how that might be improved and does not set standards as far as farm management practices are concerned'. (ECC2) Key indicators to measure farm performance can be linked to industry based standards (DPI1, LW1, ECC2, DPI3), 'based on whatever the industry considers for that environment to be best management practice, because that should be achievable' (ECC1). Standards for areas within a catchment may also be contained within land and water management plans. (DPI1, CMA1, MI2) The combination of industry with regional variation is likely to require a great deal of diversity in standards, targets and measures: 'You're not going to have one target or one benchmark that suits everyone's purpose. But what you need to do is make them understand that whatever target they use, they may miss a component or they may need multiple targets' (MI2).

Summary: The responses affirm that standard setting should incorporate compliance with environmental protection and resource management laws. In addition to such statutory requirements, interviewees identify plans such as catchment or water management plans that set region scale performance goals as another source of broader expectations. These need to be connected to a practical farm management scale by clearly specifying key areas of performance for farmers. Industry involvement in a standard setting process is viewed as a way to enhance the practicality of broader standards making them relevant to production standards and market access requirements. It is also acknowledged that standards are not enough. Farmers will also need the capacity to keep evidence of progress and demonstrate accountability against the standard.

Q2c: What is reasonable to expect of an irrigation farmer in terms of looking after soil, water, vegetation and ecosystems? Do existing standards or other information help to define what is reasonable? Is there a process for deciding what is reasonable for a range of situations? How might a court decide what is reasonable?

The literature reflects the significance of 'reasonable' both in establishing standards of care and in evaluating the performance of a duty holder relative to their obligation. The responses to this set of questions provides an indication of the type of evidence that may be available to assist a court or an administrator in applying reasonable care to a particular situation.

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[176] This refers to the Property Vegetation Plan Developer, a software tool used by Catchment Management Authority staff (in NSW) to assess biodiversity conservation values at a farm scale. It is used in developing funding agreements between individual farmers and an Authority so that relevant biodiversity targets are converted into outcomes.

'Reasonable' is suggested to involve the minimum standard of compliance with statute, contract requirements or access rules and to follow best practice (AFI1, AFF1, CMA1, RA1, EW1, EW2).

> A farmer should at least be maintaining their water quality, soil health, biodiversity by production measures. I think it's reasonable to expect farmers to do that. Give them some parameters and let them use their farm, and work out maybe that they'll have certain environmental aspects here, production aspects here and so on. (DPI3)

What is seen as a reasonable standard can be expected to rise as understanding develops about environmental impacts, production and conservation needs:

> They can expect that standard of doing things is going to continue to rise. They have to be ready for this. So the expectation is that they'll be continuously improving their environmental performance. (LW1)

A number of responses link the concept of reasonable with foresight of potential harm. This reflects a common law interpretation. What is reasonable in this sense might be no contamination of soil, water or air, not to generate pest and weed problems, and improve remnant vegetation management. (F1) These are actions that ensure neighbours (those people that a reasonable and prudent farmer would anticipate as adversely affected), the farm and surrounding landscape are not degraded and ecosystem services are maintained. (F4, L1, L4) Falling below the base standard is expected to trigger enforcement action. (LW1)

There is also recognition that what is reasonable is contested:

> Reasonable is a value-loaded term. And what's reasonable from one point of view is unreasonable from another. There are standards around what's reasonable and, depending on your viewpoint, you can describe them as reasonable or unreasonable. (DPI3)

This is emphasised for irrigation by arguments about water use efficiency, for example:

> The government might say it's reasonable that they would like to see me having water efficiency by using sprinklers, whether it be centre pivots or lateral. But I'm not going that way because what's my scarce resource? My scarce resource isn't water. My scarce resource is energy. And that's the way I see we as a nation are going; our scarce resource is energy. And energy is required to either pump water out of the ground or have those sprinklers working. An outside person's perception is that I, as a flood irrigator, am a bad person because I should be using sprinklers. And yet with sprinklers only a small amount of water hits the target, you can't get across large areas, and you've got a huge amount of capital sitting there idle when water allocations are low. (F2)

What is reasonable also has a socio-economic dimension. For the farmer this is a personal expectation to maintain natural assets for viability and survival of the farm business, now and for successors.(F2, MI2) Reasonable to the community is that the public interest in a healthy environment is recognised as an ordinary part of farm practice, for example:

> The irrigation farmer ought to have the least possible adverse impact on all the components of the environment, whilst still making a viable return on investment. I think as a society we would expect that farmers ought to avoid as much harm as possible in an environment where they need to make a reasonable living. But the emphasis is on the word reasonable. It can't be the greatest possible profit in the shortest possible time should dominate. (L3)

The community is viewed as having an enabling role through education, incentives and a product premium to reward good stewardship practice: 'the community should be rewarding farmers, and recognise farmers as stewards of the land. Unless you can reward them and recognise that, I don't think it will be justified to ask them to do anything' (F3).

Directors' duties provide a model to develop a custodianship ethic in the farm business 'by providing a means to absorb environmental management costs into the business' (EW1, EW2).[177] Performance beyond the reasonable standard of rules is determined by agreed region or industry specific best practice, for example, catchment targets in NSW (ECC2), cotton best management practices (LW1) and the rice environmental champion's programme[178] (F1, RA1). Community land and water management plans from the southern NSW irrigation regions provide a plan of best fit for understanding community expectations and practical responses to district problems. (F2, R2) The guidance of these plans through on-farm practices, planning and incentives help farmers meet regionally focussed outcomes and the licence requirements for private irrigation companies. (MIL2)

There is a link between reasonable, and regional and industry characteristics, discussed above. Standards need to be regionally and/or industry specific to be of greatest practical use:

> The problem by imposing some kind of so-called reasonable standard of farming practices is that what is reasonable practice in Tweed Heads will be different from what's reasonable practice in the New England, and so on. It will be necessary for each region to present evidence as to what is reasonable within that particular area. Those reasonable standards and reasonable expectations will, I think, need to be qualified by reference to the particular locality in which that farmer undertakes his or her farming enterprise. (L2)

For the farmer, the challenge of meeting expectations is 'to have a decision-making process that helps them demonstrate responsibility' (RA2). Such a process might be built into a code and may include (L4):

(i) Practices that preserve the ecological systems on the farm and neighbouring land

(ii) Maximising the conservation of water

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177 *Corporations Act* 2001 (Cth) Directors duties, above n 3.

178 Rice Environmental Champions is an industry based program run by the Ricegrowers' Association of Australia. It involves groups of farmers providing a peer support network to achieve performance targets for land, water, biodiversity, business and community 'assets'. There are five performance levels ranging from basic industry standards (Level 1) to regional efforts toward catchment sustainability (Level 5). Ricegrowers' Association of Australia, above n 172.

(iii) Containing pests and pollution hazards

(iv) Preserving a level of environmental water flow through the farm

(v) Having regard to the health of the catchment

(vi) A due diligence assessment as the farm upon purchase to establish the status of rights and ecological capacity of the farm

(vii) Monitoring critical points of environmental performance over time

(viii) Being accountable for the ecological balance sheet of the farm at the end of tenure, or at specified time intervals during tenure

Q2d: What harms, to who or what, are we trying to prevent, or compensate for? Is it some identifiable group, or the community in general who benefit? How might the idea of compensation work?

A duty of care is intrinsically about the obligation to act in ways that minimise the risk of harm. Legal responsibility arises when a harm of the type to be avoided arises. The responses to this question are used to identify the types of harm that might be the basis for a farmer's duty of care to the environment.

Types of harm

Interviewees characterise these as either specific harm to an individual, or broader harm affecting the community. Specific harms identified include: contamination of water or soil from pesticides and nutrients, and contamination of air from dust or smoke and chemical spray drift (F1, ECC1, IRN1, RA3), or 'works likely to cause flooding and damage to other people's property' (IRN1). 'Excessive, indulgent or unfair use of resources' is identified as a possible harm, 'for example over-extraction of water affects the future access rights of the perpetrator and those of others relying on the same water source' (DPI3). Clearing native vegetation is a specific harm to the extent that local property is affected. (F1)

Many of these specific harms have broader implications for the community or society. (MI1, RA3) Thus, issues like water pollution and clearing have broader effect at a catchment scale, affecting downstream uses and ecosystems and regional affects on habitat and vegetation community quality. (IRN1, RA2) The harm from degradation of natural resources was also specified as the loss of a

community asset, affecting prosperity of communities now, (DPI3) and limiting opportunities for the future (ECC3).

The beneficiaries of reducing these harms are of interest since by implication identifying potential beneficiaries of harm reduction can lead to the identification of additional harms. Local farmers, their neighbours, their successors, the local community and environment were seen to benefit from minimised harm. Rural industries benefit from improved social perception and increased security of access to resources. (AFF1, RA1, DPI3) Financial institutions and government were also identified as relevant to harm from environmental impacts. (EW1, EW2)

The role of compensation?

Among the expectations of a duty of care for the environment discussed in Chapter 2 is that clarification of farmers' boundaries of responsibility would open the door for compensation to farmers for costs or obligations imposed upon them beyond their duty of care. Who will pay and who will be paid for the delivery of ecological sustainability remains at the heart of tensions aver resource stewardship (also evident from Chapter 2). Stakeholder opinion revealed various interpretations of compensation under a legal duty of care, moving in both directions between farmers and society. Table 3.5 summarises these.

Table 3.5: Views on compensation

Direction of compensation	Type
Farmers to Society	(i) Financial restitution for harm done (ECC3) (ii) Funding action to protect or restore an equivalent ecosystem to the one damaged (RA2) (iii) Failure to act in the public interest with natural resource management (EW1, EW2) (iv) Punishment for breaking the law (DPI2) (v) Restore land and habitat condition (LW1) (vi) Loss of access to resources for poor behaviour (MIL1)
Society to Farmers	(i) A reward for production of public goods (IRN1) (ii) A structural adjustment to transit from one set of rights to another (FI1) (iii) Recognition of innovators (RA1) (iv) Trade off between environmental and production outcomes (RA3) (v) Industry or marketplace reward for production system qualities (F1) (vi) Compensating complete loss of property rights (EW1, EW2) (vii) Aid in moving to a different set of agreed outcomes (CMA1) (viii) Compensation for part loss of investment base (MI1) (ix) Addressing problems from past legislation and policy about resource access and use (MI2) (x) Incentive to achieve public good targets (MIL1)

Compensation of farmers by society is seen as an incentive to lift performance or reward for performance, (FI1) assistance to adjust to new performance parameters (AFF1, DPI3), or to

encourage change before harm occurs. (EW1. EW2) It was also suggested that compensation might come from non-government sources in some instances:

> Where it can happen without the role of government is better, through things like sponsorship from private industry. If private industry wants to be seen to be doing the right thing, then they can kick the can. And I suppose examples of that are all the sponsors of Landcare. Lots of corporate sponsors of Landcare would be seen to be doing their bit for the environment. Another way is through the consumer paying a premium for a product that is coming from a sustainable production system, and Banrock wines are the example there. (F1)

Compensation from resource users for natural resource depletion raised practical concerns. It was suggested that a monetary payment does nothing to restore an affected environment (MIL1, RA2), or is complicated by the extent that degradation is caused by the actions of previous generations and government policy expectations. (DPI1)

As I have previously discussed, compensating relies on being able to identify who or what has been harmed, causality of harm and what the harm is. This is complicated for farming where harms have accumulated over time, through an interaction of causes:

> Who bears the cost for the debt that's in the landscape? Farmers have moved on but the degradation remains and whether that is something that should be borne by current farmers is contentious. (EW1, EW2)

Q2e: What security might the use of a Duty of Care provide to farmers? When might it be used, and how?

Farmers' political support for a statutory duty of care is largely predicated on the expectation that formalisation of their stewardship responsibilities will be a shield against increasingly stringent accountability for environmental protection. Interviewees were invited to detail these anticipated benefits. Certainty and a structured process for change are the benefits (securities) that stakeholders see a duty of care providing farmers. Table 3.6 summarises interviewee descriptions of these benefits.

Table 3.6 Expressions used in discussing security from a duty of care

Certainty	**Process**
(i) Recognition (RA2, ACF1, ACF2)	(i) Problem solving (CMA1, MI2)
(ii) Performance standard (RA2)	(ii) Product responsibility (F1)
(iii) Long term production potential (F1)	(iii) Policy and political recognition (RA2)
(iv) Rules timeframe (F2, AFF1)	(iv) Realise stewardship value (LW1)
(v) Risk minimised (L4, AFI1, EW1, EW2, DPI3)	(v) Demonstrating good and sound performance (F1, L1, L3, L5, MIL1, DPI3)
(vi) Environmental obligations (EW1, EW2)	(vi) Shoring up equity of successors (MI2, RA3)
(vii) Proof of action (MI1)	(vii) Understanding long term implications (F3, MI2)
(viii) Consistency of rules (MIL1)	(viii) Protection from liability (ECC1, DPI2)

The expectation is that a legal duty of care will clearly define responsibilities so farmers can meet expectations about their performance. (F3, L1, L2, MI1,MIL2, RA2). 'If you are going to impose the duty under legislation, you have to have the guidelines so that someone can tick the boxes and say "I've complied with what the government (read society) expects of me as a farmer". Having done that, I can continue on in some security that I won't be liable' (L3). For example, certainty of a rules timeframe is important for security because it defines responsibility for a set time to meet defined expectations:

> You can say I have met these standards; I have ticked these things off. Therefore I can rest easy. I do not have to continually beat myself up in trying to do the right thing. I've already done the right thing, therefore I can sit back with satisfaction at the end of the day knowing that I have fulfilled a set of parameters. But that's only for a particular timeframe. In twenty years time that set of guidelines might be completely different. (F2)

Primarily following the process of demonstrating performance is perceived to bring security of social licence for farmers, providing for continued access to (infrastructure, finance and natural) resources:

> Access to various support and information can all be pinned on having first of all satisfied a duty of care. Australian cotton might have been able to do that. After their pesticide reputation and so on, they got their act together. I think they've now got licence to farm sorted out. Access to water much more willingly than say rice growers, and they've also got some good social capital they can trade on. I think that by displaying a duty of care that they have then got these other values in the cotton market. I think that the government should support that realisation of other value for people that are providing more than just the thing we buy at the shop. So where the farmer is providing performance well above their duty of care, I think that full stewardship payments are appropriate, along with ongoing research investment, wide productivity gains and the provision of infrastructure. (LW1)

These types of expectation can only be realised if a minimalist version of the duty prevails or if the duty of care is implemented with the support of highly detailed codes. Either approach poses significant problems. A minimalist approach will frustrate expectations of increasing stewardship responsibilities; and a detailed codification will result in the type of highly detailed and prescriptive rules which have been identified as stifling farming innovation.

Q2f: What are the issues that should guide irrigated agriculture to a sustainable future?

In part to inform the development of the moot problem (Chapter 4), interviewees were asked to specify

Table 3.7: Farming and society issues

Issue	Examples from interviews
Healthy soil ecosystems	There's a range of things around soil. Soil health and managing soil well to be more self-sufficient in soils. Chemical fertilisers are expensive and have implications for greenhouse gas emissions, so it would be good to increase soil health through organic matter and carbon. (RA2)
Efficient and non polluting water use	Irrigators have particular broad-scale responsibilities around salinity-groundwater and surface water, water quality, and wetlands. There's a real nexus with what they're doing within aquatic systems and to aquatic systems, and to the natural capital they're managing. (EW1, EW2) To be sustainable we need to make sure that water is used as efficiently as possible, be it through higher production or lower water application. Irrigators need to justify it whether they like it or not to the wider community that water is used in the utmost efficient way. Also to ensure that there is not a negative impact on downstream communities from whatever farm activities they undertake, from a water quality point of view. (MI1)
Energy efficiency	There are some areas of water use efficiency and improvements that need to be made. Surface irrigation systems always cop a flogging with calls to convert to centre pivots or drip systems. But I think they need to do an environmental audit and say OK, the energy expended to run these pressurised systems, what kind of environmental impact is that having as a whole compared to a surface system reliant on gravity? A well designed and installed and maintained surface system can be perhaps more beneficial than a pressurised system. Just because of the energy to run it. (DPI2)

the environmental issues that are likely to be the subject of a duty of care. Three biophysical issues were dominant, along with a number farming and society issues, where the emphasis was upon the avoidance or resolution of complex conflicts. These are detailed in Table 3.7. Lawyers, in particular, use such specific concerns to highlight that environmental benefits help farm production. (L1, L3, L4, L5) For example, 'more vegetation, better ecosystem management and more connectivity is something that's important for irrigation to realise the opportunity terrestrially to recover and improve things ' (L5).

Farming and society concerns are shown in Table 3.8. One interviewee claimed that such issues help foster "an ecological ethic to only use the water, fertiliser and pesticide needed, to have a minimal impact on biodiversity and leave a productive and diverse environment for future generations (L1)". This is also referred to as "the capacity of the landscape to provide (AFF1)". Long-term economic viability is viewed as a precondition to fostering a long-term management perspective on farm: "Economic sustainability is very important because if they are not economically viable or sustainable they're not going to be there to do anything. And that's going to drive them to do things that are inappropriate. If the economics of farming is healthier then I think we will see them sustainable in the sense of continuing as a business. And they will be able to take action to improve their water use efficiencies, to monitor water quality, to rotate or spell land as they might need to, so that they don't have to farm every inch of it every year (DPI1)".

Table 3.8: Issues identified by interviewees that link farming and society

Link Issue	Examples from interviews

Link Issue	Examples from interviews
Competition for water	The intra or inter-industry uses, or human desires for water. So that's water to the environment, that's water to the towns and cities, that's water to industry, that's water to broad acre agriculture and that's water to irrigated agriculture. They're all competitors and that's a big issue for allocation of the resource. But then you've also got the intra-industry competition. Cotton versus rice, versus pastures, verses horticulture those sorts of conflicts. (ECC3)
Resource allocation decisions (*natural resources & financial*)	Water entitlements are a big challenge that the irrigation industry faces. Reduced allocations cuts into your ability to pay for environmental outcomes.(RA3) What's also important is that whoever's got the task of communicating the decisions that are made to change, can actually articulate that they are fair. Decisions should be shown to be fair to the people that are impacted. Rate of change is also very important. The perception of rate of change in farming communities versus rate of change in governments is different. Governments and environmental activists think the rate of change is far too slow. If you would ask every irrigator here, they would say it's just been constant for the last ten years and very significant. So we've got this big gap. People need time to adjust.(MIL2)
Acknowledge rights and a clear process for their alteration	I think the National Water Initiative has made some progress in terms of acknowledging what people's rights are and the process if those rights are to be altered. I think that's important, it helps mitigate the politics. If we as a society want to change the balance, that governments pay. Because so much has been invested by farmers in what was until quite recently encouraged by government. The government should recognise that if change is going to happen, they need to help people manage that process. The money is about fairness. (MIL2)
Lifecycle analysis	Whole of industry planning to understand all of the lifecycle, energy and resource impacts. Getting back down to demonstrating continuous improvement on a farm basis as well as an industry basis, for soil, water, vegetation and ecosystem impacts. (LW1)
Defined outcomes and measures for environmental water	One of the problems is that we've now allocated water to the environment, but we don't have performance measures around the use of that water and the results that's achieving. You've got to go to long intense resource monitoring and measurement to get to a situation where you understand the interactions between flows in environment and then obviously at the back of that, understand whether in fact the water that the environment now owns is actually being used most effectively or most efficiently. (AFI1)
Farm system management to improve the value of natural systems	"This is management of ecosystems for long-term sustainability. Really starting or getting a broader appreciation of what those natural systems mean in a landscape and how they can be looked after as part of the farming system and create a better overall landscape.(RA2) Just having the sense that they're all connected. Issues of biodiversity or issues of water are connected. Then there's greenhouse adaptation and the sort of impact that is going to have. So I think the big challenge is to see those connections and manage them not as isolated issues. (EW1, EW2)
Acceptable water use to the community	We need to become more responsible with how we use water. There are quite a lot of irrigators who run water through open channels to water stock. And they would argue that they've got an entitlement to do that. So it's OK. But the time will probably come when the community says, that's not OK. That's just a waste of water. We don't care if you've got an entitlement or not. That's no longer acceptable. You have to pipe it to a tank and a trough, and be a lot more responsible with it. It's a community resource even though you might have an entitlement to it. (F1)
Valuing all aspects for resource use	Promotion of soil life rather than killing it all to create a medium. Much more efficient use of water and revegetation of farms so that they're not all cleared land. But you do also have wildlife corridors and some biodiversity there so that you have a co-existence between farming and nature. And I think if we do that, surprisingly, farmers would actually make more money because now they can't see that what they're doing is destroying all of the beneficials that are there to help them make a living. (L3)

Link Issue	Examples from interviews
Acknowledge and reward responsible production	We thank you for busting your backsides to produce food for us. (F2)

Conclusions

The interviews indicate the types of views that are likely to face an administrator or judge attempting to distil the content of a duty of care for the environment, or to apply it to particular situations. They suggest that where consensus can be found about community norms, it is about obligations to comply with specific statutes and to avoid causing harm to neighbours. Moving beyond this requires determining standards for which the support is polarised. While courts and parliaments have been entrusted with the responsibility for advancing community standards, administrators have not traditionally been given this role. The potential for legal dispute around their decisions to either extend or refuse to extend concepts of the duty seems high.

The courts will then be faced with the need to determine principles to prove both the duty of care and satisfaction of that duty. On the basis of these interviews, the objective evidence is likely to be contested.

There are competing and concealed meanings about the duty of care and what it can achieve for environmental protection in farming. The concealed nature of the problem is shown by stakeholder's general understanding that a duty of care provides certainty about responsibility but with a great diversity of views about the extent of that responsibility. Beyond a general understanding, expectations about what the duty of care can do are clustered around two main themes: the duty of care as a baseline or the duty of care as an aspiration for environmental performance (as also described in the literature review). Both views are strongly held as 'fact'.

The common law duty of care process for establishing bounds of liability and norms of behaviour is reflected in stakeholder views. There is an expectation that this boundary setting process provides greater certainty by challenging stakeholders to articulate their concerns. Social licence, risk assessment, and standards of performance are suggested as elements in this process. However the type of negotiation and dialogue that is generally seen as necessary to resolve the complex issues of environmental responsibility is not well suited to either the courtroom or the administrative tribunal. The interviews have clearly demonstrated the complex and broad ranging issues that are involved in finding a satisfactory balance of interests.

There are social, technical and institutional obstacles to a new use for the duty of care. Entrenched views complicate agreement and affect the extent that stakeholders accept and understand a need for change and the consequences of not changing. Perception of fairness is important to achieving acceptance of change to access and use rights. The contribution of historical rules and policy to resource degradation makes it difficult to attribute fault for the impacts that arise today.

The interviewees highlight technical difficulty with identifying impacts, and having measurable standards to rate performance. The expectation of the function of a duty of care protecting private rights seems at odds with concerns to advance stewardship of natural resources and environmental protection through the same mechanism. The adversarial approach to defining a duty does not seem conducive to agreement between interests. Though it may highlight different interpretations of abstract principles define. Potential implementation of the duty is complicated by technical uncertainties about cause and effect, farming system and regional differences.

Obstacles to the implementation of a duty of care may be overcome with the creation of clear obligations and standards of performance with a sound technical basis and accepted community backing. This however emphasises that this is likely to be a minimum level of performance and raises the question of what is the function of an overarching duty of care for environmental protection.

Stakeholder views about a duty of care as an aspiration to lift performance to the highest standard of environmental protection suggest that its principle function will be to create a tension towards higher standards of stewardship. This in turn is likely to trigger greater pressure from the farm sector to specify these requirements. Such a dynamic of conflict, politics and (hopefully) resolution is likely to advance sustainability. However this leaves both administrators and judges in the position of having to distil community norms from a polarised pool of expectation, and to apply these in situations where evidence of causes and effects may be (at best) contestable.

There is a general expectation to comply with rules and an expectation of positive moral behaviour as a part of farm management. This is informed by community mores to protect the environment. Such responsibilities are supported by community obligations to provide incentives or market rewards for good performance. These views tend to a standard of virtuous performance rather than the standard of minimum accountability. However the difficulties to implementing this expectation through administrative or judicial rulings are material.

Stakeholders identify that a process for establishing standards should be collaborative, ideally bringing agreement on broad objectives then working out standards of performance to get there. This incorporates environment protection rules and broad goals from regional plans to guide outcomes. Industry involvement ensures standards meet industry norms and market access

requirements. The process should also recognise that standards are not enough. A farmer needs to know what the standard is and how to keep evidence of performance. Collaboration between stakeholders is thought to ensure that information and support for implementation will compliment standards. Courts were viewed as a last resort for specifying standards.

Compliance with rules and best practice guidelines is seen as the practical means to ensure that neighbours, the farm and surrounding landscape are not degraded, and that delivery of ecosystem services is maintained. A reasonable farmer should expect to be held accountable against such a standard. However, converting this to a legal obligation is viewed as problematic. Being reasonable is viewed as a decision making process for the farmer. The duty of care process is seen to relate to a minimum standard of reasonable care rather than virtuous stewardship.

Stakeholders identify the duty of care as a process to improve certainty of expectations; a means to hold farmers accountable for their natural resource management practices, while giving farmers the means to understand what those accountabilities are (through collaboration and agreement). Some stakeholders expect that this standard of minimum accountability reflect specific government rules and industry practice requirements. Counter to this are stakeholder expressions about farmers' stewardship responsibilities and reasonable behaviour that appear to 'speak' of virtue. Such contrasting views reinforce that the duty of care is a generally agreed process for defining the boundaries of responsibility, but that the words mask the competing expectations about the standard it provides (accountability or virtue). This is a tension likely to inhibit the effectiveness of a duty of care in providing certainty about farmers' natural resource management obligations.

The interviews largely reflect the policy arguments for a duty of care discussed in Chapter 2, and support the argument that legal implementation will be difficult because of the many problems of cause, effect and evidence that will be involved in implementation. For these reasons, there is a likelihood that the courts will have to find a practical means to resolve the issues of legal principle. What this may involve was tested using a novel experimental method, the moot court, described in the following chapter.

Chapter 4: Moot Court Experiment

Introduction

Chapters 2 and 3 support proposition 1 and 2 of the thesis. These are (in essence) that there are competing norms, which remain unresolved, about standards of responsibility for the use of natural resources by farmers; and that the statutory formulations of a duty of care leaves these unresolved but concealed.

This chapter describes the experiment to test the third proposition in this thesis:

Proposition 3: With unclear definition (of a statutory duty of care), the common law interpretation of duty of care is likely to be used in disputes.

Chapters 2 and 3 provided evidence that duty of care has multiple meanings and its practical application is fraught with difficulties. As noted in Chapter 1, courts may be called upon to adjudicate disputes that, at their heart, require an interpretation of 'duty of care'. There are two ways courts are likely to become involved: litigation over the interpretation of reasonable care when a breach of the statutory environmental duty of care leads to damage to property; or through appeals against the determinations of administrative bodies that enforce the duty of care, which harm the economic interest of a resource user.

The moot experiment was used to identify the likely interpretative processes that would be applied to give meaning to the concept of an environmental duty of care, and the extent to which this interpretative process would be reliant (or not) on the jurisprudential interpretation of a duty of care in the common law. The research required that the types of circumstances in which such questions may arise and the evidence that would be required for such a case be understood. Specifically, the moot experiment tests two propositions that derive from proposition 3:

3.1 Legislation cannot sufficiently define a duty of care for natural resource management by farmers and, therefore, in the absence of other legal bases for deciding;

3.2 Common law principles for a duty of care will have to be used to provide detailed interpretation of the meaning in this context.

The moot experiment is also intended to throw light upon the potential effectiveness of the duty of care in meeting the competing expectations described in Chapters 1, 2 and 3.

The experiment sets a hypothetical situation in which parties are involved in a dispute that cannot be administratively resolved and that is adjudicated by a court. The hypothetical legislation, The *Good Agricultural Practice Act* 2008 (New England), forms part of the experiment, and a moot court was used to simulate what might occur in a real court.

This methodology emerges from a tradition of qualitative research of law in society,[179] which distinguishes between the proclaimed objectives of legal rules and their actual workings and consequences,[180] and identifies potential problems with practical application. Structured experimentation on the meaning that will be applied to the words of statutes within their potential context, given the vagaries of judicial interpretation and litigation, is potentially useful in understanding how enactments like an environmental duty of care may be implemented judicially.

Moots have been used to test law since medieval times. Historically the role of mooting was to refine principles of law (in the Inns of Court in London) in advance of their application in court.[181] In legal education today, moot courts are used for developing and evaluating the courtroom skills of trainee lawyers. They provide an approximation of the conditions within a court.[182] The closeness of this approximation can vary by the use of simulated or real courtrooms, witnesses, lawyers and judges; by the 'realism' of the facts and the evidentiary arrangements; and by how the roles of the moot participants are structured. In spite of its current focus on testing the capacity of the (usually student) role players and the techniques they use, the law itself is also being explored.

Table 4.1 provides an overview of the six stages of the experiment used in this thesis. The problem formulation and rationale for the experiment reflect the literature and interviews discussed in Chapters 2 and 3.

The first part of this chapter describes the experiment design, implementation and analysis, the second part discusses results from the experiment.

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179 Susan B Coutin, 'Qualitative Research in Law and Social Sciences' (Paper presented at the Workshop on Interdisciplinary Standards for Systemic Qualitative Research, 2005); Lon L Fuller, 'Some Unexplored Social Dimensions of the Law' in A.E. Sutherland (ed), *The Path of the Law from 1967* (1968) 57.

180 Mathieu Deflem, *Sociology of Law, Visions of a Scholarly Tradition* (2008) 7.

181 John Snape and Gary Watt, *How to moot, a student guide to mooting* (2004); J H Baker, *The Legal Profession and the Common Law. Historical Essays* (1986).

182 Snape and Watt, ibid.

Table 4.1: Moot experiment stages

Stage	Description
1. Moot problem formulation	Research of the issues and development of a hypothetical using desk top research (discussed in Chapter 2), work-shopping and discussions with legal experts and interviews
2. Advocate and judge briefing	(a) Service of documents: legal practitioners provided with documentation for the moot containing the details of the hypothetical (b) Preparation time: a period of preparation on the moot day for each team to finalise their arguments
3. Questionnaires	First, questions for individual practitioners immediately prior to the moot. Second, questions for individual practitioners immediately following the moot
4. Moot court	Observations of the proceedings made by briefed observers using structured data sheets
5. Focus group	A facilitated de-brief for the legal practitioner participants as a group
6. Document review	Transcriptions of the moot and focus group, review and analysis

Method

To test proposition 3, the experimental method needed to identify the way in which a duty of care might be applied within a court setting. First, it was necessary to create a realistic hypothetical case involving statutory duty of care for natural resources to be brought to court. Second, the judicial deliberation about the duty needed to approximate reality.

Moot Problem formulation

Many legal technicalities were explored in designing the case including: standing, technicalities of the appeal, questions of law, structure of the appeal claims and their relationship to each other, drafting legislation to support the hypothetical (moot experiment), and conflict of laws between Commonwealth and State jurisdictions over natural resource management. As the subject of the research is not the legal technicalities, these issues are only discussed to the extent that they impinge on the design of the hypothetical moot problem.

The first challenge was to create a realistic scenario that would require the court to determine the meaning of duty of care as stated in statute. An environmental duty of care is couched in the legislation as an administrative law principle. However, as discussed in Chapters 2 and 3 there are

ample reasons to believe that the courts will become involved in determining appeals against decisions made by administrators. The challenges of determining objectively what standard of care ought to be applied, and whether this standard has been satisfied, raise thorny problems of principle, statutory interpretation and evidence. The analogous history of the precautionary principle (another administered environmental standard with significant implications for rights to fully exploit private property) shows that there is a realistic basis for expectations of appeals against administrative decisions of this type.

A workshop comprising lawyers, including two experts in litigation, was used to find scenarios to trigger litigation of the type being investigated by this thesis. The workshop identified two feasible paths:

1. Appeals against administrative determinations where the duty of care may be applied counter to resource-user interests; and
2. Appeals against orders such as terminations of leases, or orders for costs of protective or rehabilitation works that are encompassed within the different forms of the duty in different states.

Other possible paths towards judicial determination of the application of an environmental duty of care were also identified. However, it was decided to limit attention in the experiment to these procedural matters to narrow the scope of the experiment to manageable levels. The hypothetical statutory duty of care within the moot experiment reflects existing legislation, adjusted to clarify the existence of a right of private action and associated remedies for failures of the administration to properly apply the duty. This was done merely to avoid technical issues of standing dominating the experiment.

It was also decided to frame the hypothetical Act and the moot problem to involve issues of harm to neighbours and compensation over loss of access or use rights for natural resources. A more straightforward path would have been to consider administrative appeals over orders for remediation, costs or possibly lease termination. However, it was decided that framing the problem to involve issues of harm to neighbours and compensation over loss of access or use rights would lead the moot participants to more directly explore the legal meaning for the term ‘a duty of care’.

While these design decisions create artificial constraints on the issues, this is consistent with a tradition of social experimentation. The focus of experimental design is to limit variables that are not the focus of the research. In this instance, procedural matters are peripheral to the main purpose, which is to understand how courts may grapple with the central terminology of a duty of care.

Alternative moot problem designs could be used to explore legal procedural issues associated with implementing the duty.

As has been illustrated in Chapters 1, 2 and 3, there is a number of complex issues embedded within the interpretation of a duty of care. These include defining the norms of reasonable care, and issues of proof, evidence and causation.

Given the varied forms of the duty that are expressed in legislation, it was decided to base the experiment around a composite statute with a hypothetical jurisdiction. The mythical *Good Agricultural Practice Act* 2008 (New England) 'the Act' (reproduced in Appendix 3.1), was drafted to provide a single statutory focus for the experiment.[183] The mythical Act does provide standing for an individual person to sue (see s.5 of the Act in Appendix 3.1). As discussed, this circumvented the possibility that technical issues of standing would subvert the purposes of the experiment.

The disputes in the moot were structured as appeals involving separate neighbours arising from the actions of a single farmer. These are summarised in Table 4.2, and detailed in the 'Statement of Claim' at Appendix 3.2. The first dispute was the Australian Bush Trustees Limited (ABT) appeal triggered by harm to native vegetation; and the second dispute was the Worcester Wetland Action Group Limited (WWAGL) appeal triggered by harm to ecological assets. These were developed to contrast a directly enforceable statutory duty of care (ABT) with liability for environmental harm under a strict liability regime (WWAGL).[184]

The two hypothetical disputes were run together as appeals, allowing a single sitting of the moot court. This was necessary because of limits to the available time (in turn limited by budget) of the legal practitioners participating in the moot. This was engineered procedurally by having the fictitious Attorney-General of New England intervene to support both appeals. The intervention was notionally justified as necessary to uphold parliamentary intent in creating a statutory duty of care in the hypothetical *Good Agricultural Practice Act* 2008 (New England), and because of the significance of the trial court decisions for application beyond the bounds of the case.

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183 The hypothetical *Good Agricultural Practice Act* 2008 (New England) brought together a general environmental duty of care from s.319 of the *Environmental Protection Act* 1994 (Qld); the meaning of ecologically sustainable development from s.6(2) of the *Protection of the Environment Administration Act* 1991 (NSW); the meaning of natural resources from s.5 of the *Natural Resources Commission Act* 2003 (NSW); a determination of reasonable measures based on s.9 of the *Natural Resources Management Act* 2004 (SA). The object of the mythical act was based on s.3 of the *Environmental Protection Act* 1994 (Qld).

184 The intention of this design was to contrast the way a court handled environmental harm under a strict liability regime with that of negligence. This aspect of the moot was not effective due to design problems with the moot. An effective contrast could have been made if the Ramsar wetland problem involved a piece of intervening land such that the impact from the farming activity was not direct. This would have then brought reasonable foreseeability into the question of whether the farmer's actions cause a significant impact.

Facts involving harm to neighbours were incorporated to create a link to the law of negligence. This was intended to ensure that the degree of overlap between the principles for a statutory duty of care for the environment and the common law duty of care to a neighbour could be explored in the litigation. Harm to neighbours also allowed the dichotomy to be maintained between administrative enforcement and a duty of care formulations in a private suit. However, as the statutory duty is to the environment, these facts needed to arise from ecological harms. The harm to neighbour issues selected centred on native vegetation on the one hand and harm to ecological character of a wetland on the other: both allegedly leading to loss of income, described in Table 4.2.

Table 4.2: Environmental harm and duty of care

Type of harm	Incorporation into the moot problem
Harm to native vegetation	Appellant seeks compensation for economic harm due to the loss of financial support for a habitat conservation programme jeopardised by degradation of vegetation on the respondent's property. Degradation and subsequent loss is an alleged breach of a statutory duty is under section 5(i) of the hypothetical *Good Agricultural Practice Act*, 2008 (New England)
Harm to ecological character	Appellant seeks compensation for degradation of the ecological character of a Ramsar listed wetland by the respondent's irrigation drainage water discharge which has altered the ecological character of the wetland and led to an increase in its management costs. Degradation of ecological character is alleged to be a breach of the statutory duty of care in the hypothetical New England legislation listed above.

The compensation for loss matters aimed to trigger consideration of when compensation should be granted for restriction of access to natural resources. Compensation issues became particularly difficult because of conflicting Commonwealth and state laws about when compensation from the state is required.[185]

Participants

Given that the research questions were focused around how duty of care would be dealt with through courtroom practice rather than theory, a high priority was to involve experienced practitioners in the conduct of the moot.

The desired characteristics of moot participants were:

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185 Full or partial taking of rights is recognised under Commonwealth law as compensable, see *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513, but generally state compulsory acquisition legislation has not compensated anything less than a full loss of private proprietary interests through government acquisition, see Murray Raff, 'Planning Law and Compulsory Acquisition in Australia' in Tsuyoshi Kotaka and David L Callies (eds), *Taking Land. Compulsory Purchase and Regulation in Asian-Pacific Countries* (2002). For example see s.87 *Water Management Act* 2000 (NSW).

1. Qualified and experienced legal practitioners
2. Active in environmental, tort or related fields of law
3. With an understanding of the types of issues to be litigated.

Five legal practitioners and a (recently retired) judge who satisfied these criteria were recruited to participate in the experiment.

Three legal academics from a range of specialisations and the principle researcher, acted as observers to the moot. Their task was to note the versions of a duty of care and the supporting arguments used during the moot.

The focus group and further discussion following the moot court, was facilitated by a legal academic who did not participate in or observe the moot.

All participants were volunteers.

Constraints

A limited budget (enough to cover travel expenses for some of the moot participants) imposed constraints on the extent and duration of the involvement of legal practitioners. These factors:

1. Minimised the amount of time moot participants could be expected to spend on gathering and assessing evidence. This meant that only a subset of the type of evidence that would be required in practice could be provided, and participants had limited freedom to do extensive legal research on their own account. Chapter 3 provides an indication of the variety and type of expert opinion that could be involved in a real court case on the practical meaning of an environmental duty of care;
2. Significantly restricted consideration of issues that were peripheral to the main challenge of interpreting and applying duty of care. Matters of conflict of laws and administrative law standing (in particular) were excised from the experiment. Whilst these were identified as important issues in their own right, they were not pivotal to the issues being researched, and would have added substantially to the complexity (and time requirements) of the moot.
3. Allowed only one-iteration of the moot to be conducted. Ideally the experiment would be repeated with variations in the moot problem, and using different participants. This would highlight more issues, and give greater confidence in any outcomes that were reinforced across different iterations of the experiment.

For these reasons, certain jurisdiction and administrative standing are assumed in the hypothetical facts, and instructions were given to the moot participants about technical legal issues that were not to be contested.

Briefings

Moot Participants

The statement of claim (Appendix 3.2) was provided to moot participants three weeks before the moot. This provided them with the opportunity to review the case and pose questions to the researcher.

To provide the brief for the moot in familiar language and format, the statement of claim was for an appeal to the fictitious Land and Environment Court of New England, Court of Appeal. The brief included: the agreed facts, actions in the trial court, a statement of claim for each appeal, extracts of legislation cited, and authorities. Each item was presented under separate headings within the statement, and paragraphs were numbered to allow for easy reference. The court details and parties were shown on the cover. A site plan (Appendix 3.3) was provided as well as a copy of the fictitious *Good Agricultural Practice Act* 2008 (New England) (Appendix 3.1).

On the morning of the moot, a face-to-face briefing provided the practitioners with a further opportunity to ask questions about the problem and their brief. The briefing was followed by a preparation session where each team was provided with a separate room to finalise their claims and arguments for the court. Throughout the preparation period, participants were able to ask questions of the researcher.

Observers

The four observers were provided with the statement of claim to familiarise them with the moot content. A verbal briefing was held where data collection sheets were used to explain the observation task. The data collection sheets instructed observers to document the occurrence and nature of arguments used, record the propositions made by each side and note the evidence. These sheets are included in Appendices 3.4.2 and 3.4.3. These observations were collected for analysis.

Questionnaires

The judge and advocates each completed a questionnaire immediately prior to the moot session to identify their expectations of the utility of a statutory duty of care in court and what is needed to give it an effective function. A copy of this questionnaire is reproduced in Appendix 3.4.1.

Each practitioner completed a second questionnaire immediately after the moot (Appendix 3.4.5) to: capture practitioners' assessment of the potential application of the statutory duty based on their experience in the moot; any changes in their understanding of the practical meaning of duty of care resulting from their experience in the moot; the type of evidence they believe was needed to

effectively apply a duty of care; and the skills needed by officers of the court to make the duty operate effectively.

Focus Group

Immediately after the moot, a facilitated focus group was convened. This was in effect a debriefing of participants using a structured set of questions (Appendix 3.4.6) to develop a better understanding of issues that emerged from the moot experiment. The questions focused discussion on:

1. Will a duty of care, as a regulatory instrument, help to reduce the costs and complexity of environmental disputes?
2. What sort of evidence is going to be needed in these matters?
3. If you were charged with creating a practical duty of care to achieve the policy goals of reduced complexity and cost, what would you do?

This discussion was recorded and transcribed. Two of the moot participants were unable to stay for the entire focus group discussion and were subsequently participants in a further de-brief, using the same questions.

The moot was also recorded and transcribed. This data was used by the researcher to make observations about the nature of the argument and types of evidence involved. The judgement itself was reviewed for definitive statements about the utility of the duty of care in its application to farmers' natural resource management. The review examined the evidence that had been accepted, the extent of use of common law or statutory principles in defining the duty, and how the common law principles relate to the new use of a duty in natural resources law.

Results

As suggested by the literature review (Chapter 2) and interviews (Chapter 3), the moot participants did not find the meaning of a duty of care to be self-evident. Submissions to the court adopted competing interpretations of meaning that relied heavily on wording of the fictitious Act. Evidence of its intended meaning was its title and object,[186] the incorporation of ecologically sustainable development,[187] and the list of factors for determining reasonable measures.[188]

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[186] See s.2 in the hypothetical *Good Agricultural Practice Act* 2008 (New England); 'To protect the New England Environment while allowing for agricultural development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (ecologically sustainable development).' Based on the definition within s.6(2) of the *Protection of the Environment Administration Act* 1991 (NSW).

[187] See s.3(iii) of the hypothetical *Good Agricultural Practice Act* 2008 (New England). The definition of Ecologically

Complexity of a Statutory Duty of Care in Submissions to the Court

At the heart of the contest over the term is the substantive issue of what is the standard of stewardship expected under this legislation, and within this is the question of the principles that should be applied in structuring an objective discussion about the standard. The first appellant argues that the title 'good agricultural practice' requires an objective statutory standard incorporating ecologically sustainable development.[189] This test is relative to general standards, not specific to the land manager or context. This is proposed by the first appellant to be a standard requiring that a farmer investigate, evaluate and adapt performance to minimise environmental impacts.[190] It was argued that the Act is clear about the standard as 'section 4(ii) sets out the fundamental considerations of a process to ascertain the various impacts of the manner in which the activity is conducted', in effect defining how a farmer should decide reasonable measures.[191] It recognises 'that a modern agricultural land manager is not a peasant. He or she is a business person who is a professional engaged in a business that has both an important public purpose (in managing natural resources sustainably) and protecting the environment'.[192]

The first respondent interprets the standard as subjective, depending upon foresight in the particular circumstances.[193] This argument relies on the definition of the hypothetical duty as being only to prevent or minimise environmental harm (rather than economic loss).[194] This is interpreted by the First Respondent to mean only 'environmental harm foreseeable to the farmers' own land.'[195] The subjective approach was seen as necessary to help assess 'competing rights and obligations, duties and freedoms when determining what is reasonable.'[196]

Sustainable Development is based on s.6(2) of *Protection of the Environment Administration Act* 1991 (NSW).

188 The general duty at s.4(i) of the hypothetical *Good Agricultural Practice Act* 2008 (New England). This is based on the General Environmental Duty at s.319 of *Environmental Protection Act* 1994 (Qld). The list of factors to consider is at s.4(ii) of *Good Agricultural Practice Act* 2008 (New England). This list is based on s.9 of *Natural Resources Management Act* 2004 (SA).

189 Submission of the first appellant in the hypothetical case; *Australian Bush Trustees Limited & Worcester Wetland Action Group Limited v Henry Hull* (Land and Environment Court of New England (Moot Court at the University of New England), Mason J, 24 September 2008).

190 Ibid.

191 Ibid. This refers to the considerations set out to determine what is reasonable in s.4(ii) of the hypothetical *Good Agricultural Practice Act* 2008 (New England).

192 Submission of the first appellant, above n 190.

193 Submission of the first respondent in the hypothetical case; *Australian Bush Trustees Limited & Worcester Wetland Action Group Limited v Henry Hull* (Land and Environment Court of New England (Moot Court at the University of New England), Mason J, 24 September 2008).

194 *Good Agricultural Practice Act* 2008 (New England) See s.4(i).

195 Submission of the first respondent, above n 194.

196 Ibid.

This competition of interpretation is substantively about whether the common law negligence test of a duty of care (based on reasonable care) applies in whole or in part to the determination of an environmental duty of care.

The court determined that responsibility under the Act is limited to environmental harm.[197] This indicates that courts (and by implication administrators) will need to determine the extent to which common law principles will be imported into the interpretation of new environmental duties. The decision on this issue will materially alter:

(1) The type of evidence and argument that is used;
(2) The role of environmental standards as legal standards of stewardship; and
(3) The extent of localisation of the duty.

Ecologically sustainable development (ESD) was incorporated in the object of the hypothetical act.[198] The concept contains several principles, used in submissions to the moot court to support different interpretations of the duty of care. The first principle is conservation of biological diversity and ecological integrity, used by the first appellant to suggest that, 'threatened species and habitat should be in the contemplation of a good agricultural land manager, and form an explicit part of assessing reasonable measures'.[199] The significance of this is underlined by threatened species laws where Parliament has declared careful consideration is required as part of a reasonable decision making process.[200] For example, 'a good agricultural land manager would know from an assessment of risk and harm that risk to a threatened species would be greater than to a common species'.[201]

The precautionary principle is the next component of ESD used in the context of existing natural resource access approvals. This is used by the first respondent as evidence of good intentions. An existing (hypothetical) approval to clear native vegetation was used to show a precautionary approach by the respondent in lodging an application with the subsequent assessment process as part of that approval.[202] It was argued that an existing consent suggests no further obligation on a

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197 Judge's findings in the hypothetical case; *Australian Bush Trustees Limited & Worcester Wetland Action Group Limited v Henry Hull* (Land and Environment Court of New England (Moot Court at the University of New England), Mason J, 24 September 2008).

198 See Appendix 3.1

199 Submission of the first appellant, above n 190.

200 The first appellant uses the *Threatened Species Conservation Act* 1995 (NSW) to illustrate this obligation. Similar legislation exists for other Australian jurisdictions.

201 Submission of the first appellant, above n 190. Such an assessment is expected as part of the process for establishing reasonable measures under s.4(ii) (c) and (d) of the hypothetical *Good Agricultural Practice Act* 2008 (New England).

202 Submission of the first respondent, above n 194.

farmer to assess impact because this has already been done by a consenting authority.[203] The judge's determination was that 'consent under planning law cannot be used as a shield against other statutory obligations'[204] (such as the hypothetical duty of care). This argument reflects the competing expectations of a duty of care, with one side arguing that it does not require responsibility that goes beyond specific legal accountabilities. The argument indicates that the relationship between the duty of care and other more specific legal standards is likely to be contested in practice.

Polluter pays is another ESD principle used to illustrate that good agricultural practice is an objective community standard. 'It does this by placing the farmer in the shoes of the polluter with an obligation to assess financial capacity for mitigation as part of ascertaining reasonable measures.'[205] This principle brought issues of economic capacity and responsibility into argument, and raised questions about reasonableness and causation (similar to those identified in the Chapter 3 interviews). Economic issues of mitigation cost and economic capacity were incorporated into debate about reasonable care. 'The difficulty for a farmer is that some aspects of production can enhance environmental values, while others do not."[206] It was argued that it is very difficult to put a monetary value on environmental protection and to know at what point agricultural actions will affect that value negatively and at what consequent cost.[207] These arguments demonstrate the conceptual interconnectivity of apparently objective tests of the existence and satisfaction of a standard of care, and highly subjunctive and contextual considerations. Reasonableness and duty, causation and cost, were woven together in different ways by both sides of the case.

Judge's findings on statutory complexity

The judge highlighted that 'a farmer's assessment of reasonable measures would be made using the objective standard of good agricultural practice under the hypothetical act':[208] 'A non-exhaustive checklist provided to make that assessment only enhances complexity by its broad statements'.[209] This leaves plenty of room for undefined accountabilities to be factored into assessing what is

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203 As suggested by the first respondent, ibid. This is the duty of a consenting authority to assess the impact under s.111 of *Environmental Planning and Assessment Act* 1979 (NSW).

204 Statement by the judge during the moot court hearing. hypothetical case; *Australian Bush Trustees Limited & Worcester Wetland Action Group Limited v Henry Hull* (Land and Environment Court of New England (Moot Court at the University of New England), Mason J, 24 September 2008).

205 Submission of the first appellant, above n 190.

206 Ibid.

207 Ibid.

208 Judge's findings in the hypothetical case; *Australian Bush Trustees Limited & Worcester Wetland Action Group Limited v Henry Hull* (Land and Environment Court of New England (Moot Court at the University of New England), Mason J, 24 September 2008).

209 See Section 4(ii) of the hypothetical *Good Agricultural Practice Act* 2008 (New England) This replicates the 'calculus' from *Wyong Shire Council v Shirt* (1980) 146 CLR 40.

reasonable. The judge accepted that the assessment of considerations includes economic, environmental and social interests of the wider community. This version of objectivity potentially creates further complexity for a farmer in determining the boundary of responsibility. 'Following standard practice and seeking appropriate approvals is also relevant to an assessment of reasonable measures, but good intentions and a good track record provide no excuse for failure to undertake good agricultural practice.'[210] Meeting other statutory obligations was considered to be relevant in demonstrating good agricultural practice but provide no excuse for failure to achieve a standard that goes beyond mere compliance.

The judge accepted that 'the statutory duty of care is only to take reasonable measures, so it should not alter the fabric of legal relationships by creating onerous obligations'.[211] 'Even though the hypothetical act links on-farm action to harm on or off the farm, the extent of protection was limited to environmental harm and reasonable measures to prevent it.'[212] 'Thus a farmer should not be liable for expense to a neighbour or shoulder the full cost of preventing environmental harm (a public good).'[213]

The arguments and the judgement powerfully demonstrate that applying a statutory duty of care for the environment will involve the courts having to resolve many of the tensions and ambiguities that have driven political movement for such a duty. In effect, creating a statutory duty of care has not resolved any of the issues. It has merely provided a new venue for these issues to be contested. At the same time the complexities and difficulties of interpretation, and the formulation of the duty as an administrative process, will probably act as a substantial impediment to any agency choosing to apply the duty other than as a persuasive instrument.

The complexity of using the common law

A key proposition to be tested by the moot experiment was whether courts may have to resort to common law principles, rather than rely on the statute alone, in determining the legitimacy of decisions about satisfaction of the duty of care. From the outset of argument within the moot court it was clear that in the absence of highly specific guidelines about the reasoning processes to be applied, common law reasoning was seen as a relevant precedent. It was also clear that the parties

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210 Judge's findings, above n 209.

211 An argument based on following propositions from the first respondent, above n 194. These are about ordinary liability for negligence in *Sullivan v Moody* (2001) 207 CLR 562 and the role of negligence law in reinforcing general obligations from Bryson AJ in *Chandra v Perpetual Trustees (Vic) Ltd* [2007] NSWSC 694 (6 July 2007).

212 His honour cites Fleming, above n 4, 480 with a discussion about the erosion of rural landholders' immunity at common law from liability for harm to neighbours from natural causes. For examples of recent cases see *French v. Auckland City Council* [1974] 1 NZLR 340, and *Leakey v National Trust* [1980] QB 485.

213 Judge's findings, above n 209.

saw this as being necessarily blended with other more objective factors such as environmental and production standards.

Common law meanings were stretched in the moot as submissions to the court present arguments for what the statutory duty of care should mean. Interaction with the common law was seen as a necessary link in trying to establish the practical application of the statutory duty. The common law was drawn on to help the moot court pin down abstract concepts, when clarity could not be found in the statute.[214]

The judgement observed that: 'The hypothetical statute attempts to stretch the common law duty of care to encompass environmental protection, using a general statutory duty of care with private action for damages'.[215] The tension that this reveals is between duties to the environment per se, or duties to people (including future generations). The hypothetical statute private right of action brings this issue into sharper focus than would be the case with any of the enacted laws, which do not embed standing (but which in some cases do contemplate recompense for private harms). A common law duty of care is always owed to people. The first appellant argued that 'this can be overcome if the standard of good agricultural practice is developed incrementally to protect the rights of the environment'.[216] 'The hypothetical act is unclear about this possibility as it seeks to protect the environment then limits standing to people directly harmed.'[217] Given this ambiguity, practitioners revert to the common law for clear principles about how the duty of care can be defined. This was done in three ways, as shown in Table 5.1.

What is important from use of these principles is that the common law was necessarily drawn upon in an attempt to resolve the hidden ambiguities and complexities within the statutory formulation of a duty of care.

The first respondent suggests that: 'statutory considerations of reasonable measures are not adequate'.[218] 'A "reason to know" is also critical to the existence of a duty of care and defining reasonable. This distinguishes whether someone ought to have known and whether they have

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214 As discussed in greater detail below in Chapter 5.

215 Judge's findings, above n 209.

216 Submission of the first appellant, above n 190.

217 Statement by the judge during submissions to the hypothetical case; *Australian Bush Trustees Limited & Worcester Wetland Action Group Limited v Henry Hull* (Land and Environment Court of New England (Moot Court at the University of New England), Mason J, 24 September 2008. For the relevant section of the hypothetical act see section 5(i) *Good Agricultural Practice Act* 2008 (New England), at Appendix 3.1.

218 These are the measures contained in s.4(ii) *Good Agricultural Practice Act* 2008 (New England) (See Appendix 3.1 of the thesis). An argument used in the submission from the first respondent, above n 194.

reason to know in determining failure to take reasonable measures. A farmer must be shown to have reason to know that the action would cause environmental harm to his land.'[219]

Table 5.1: Use of common law principles

Principle	Use of common law principle (illustrative quotes)
Proximity between action and harm	The first appellant uses proximity principles to suggest 'it is no novel cause of action for a neighbour to be owed a duty of care, regardless of farmers' liability for failure to discharge the statutory duty of care'.[220]
Foreseeability of risk	The first respondent argues that 'a foreseeable risk is a real and not far-fetched possibility'.[221] 'If this is read in relation only to "your land" it limits the assessment to what happens and the harm occurring on that land. This constricts the *Shirt calculus* of reasonable measures. But if land is 'all land' then *section 4 (ii)* of the hypothetical Act does not alter the way reasonable measures are determined using *Shirt*.'[222]
Established categories of negligence.	The First Respondent also argues that "liability for negligence will only fall for failure to take reasonable care in a limited number of circumstances, such as between a doctor and patient or an employer and employee. Farming and environmental protection are not established categories for which liability can fall."[223]

The first respondent also highlights that using a duty of care in the hypothetical statute brings a reasonable expectation that an assessment of liability will be based on common law negligence. 'The consequences of not following negligence principles are to subject farmers to an intolerable burden of liability and constrained freedom of action. Using common law principles enables a balance of rights and obligations, duties and freedoms that does not greatly alter the general fabric of relationships and responsibility.'[224]

Judge's findings and the common law

The judgement was specific in highlighting the unavoidable need to draw upon common law principles. 'The words used in the fictitious *Good Agricultural Practice Act* 2008 (New England) are the language of tort and claims of liability. These bring a baggage of negligence law to its interpretation.'[225] These are 'the plaintiff's obligation to prove a case, to prove that the farmer has

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219 From *Mc Pherson's Ltd v Eaton* [2005] NSWCA 435 (16 December 2005) and within the submission of the first respondent, above n 194.

220 Following s.5(i) of *Good Agricultural Practice Act* 2008 (New England) and in the submission of the first appellant, above n 190.

221 From *Sullivan v Moody* (2001) 207 CLR 562 and within the submission of the first respondent, above n 194.

222 *Wyong Shire Council v Shirt* (1980) 146 CLR 40. This refers to the factors for defining reasonable care in the common law version of a duty of care. The use of this for defining boundaries and establishing norms of behaviour is explained in Chapter 2.

223 Submission of the first respondent, above n 194.

224 As Acting Justice Bryson has reinforced in *Chandra v Perpetual Trustees (Vic) Ltd* [2007] NSWSC 694 (6 July 2007) and used by the first respondent, above n 194.

225 Judge's findings in the hypothetical case; *Australian Bush Trustees Limited & Worcester Wetland Action Group Limited v Henry Hull* (Land and Environment Court of New England (Moot Court at the University of New England), Mason J, 24 September 2008)

done or failed to do something, to prove that the particular act or omission caused the relevant environmental harm to the relevant land, and to prove that the act or omission was unreasonable – not just that it caused harm but that it unreasonably caused harm'.[226] These place a heavy emphasis on evidence of the farmers' actions and the impacts, reflecting the common law duty of care in its specific role as a definition of performance.

The judge's opinion is that 'the fictitious Act provides a guide to good agricultural practice that reflects negligence law'.[227] 'That involves the farmer having regard to the economic, environmental and social interests of the wider community by assessing the risk of harm, the likely nature and extent of that harm, the expense of its abatement, and social benefit of action.'[228] This is an approach based on negligence law but linked to principles of ecologically sustainable development.

'An ordinary farmer should achieve and be held accountable for the objective statutory standard of good agricultural practice.'[229] 'The extent that the statutory standard is applied is limited by common law principles. For example, accountability in the event of harm depends on the facts about whether it is a consequence of farming.'[230] 'Where farming practices give rise to harm, the statutory standard has to be used to determine reasonable measures. But the law does not expect a farmer to take difficult or costly precautions out of proportion to likely harm.'[231] Under this approach the common law places a limit on the extent of liability for environmental harm under the hypothetical statute by ensuring that concepts of reasonable and foresight in the circumstances, and farming norms inform the standard of required care.

Researcher experimental observations

While no experiment can be definitive about what will happen if and when an environmental duty of care is brought before the courts, the experiment at a minimum shows that common law principles may be argued as a basis for establishing the standard of care implied by a duty of care. On the basis of this experiment it is highly likely that such arguments will occur, and that it is likely that a court

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226 Judge's findings, above n 209.

227 Reasonable measures reflect the 'shirt calculus' from *Wyong Shire Council v Shirt* (1980) 146 CLR 40, as noted in the judge's findings for the hypothetical case; *Australian Bush Trustees Limited & Worcester Wetland Action Group Limited v Henry Hull* (Land and Environment Court of New England (Moot Court at the University of New England), Mason J, 24 September 2008).

228 Trindade et al, above n 6, 431. Part of the judge's findings, above n 209.

229 The measure for determining reasonable care is an objective and impersonal one. See page 382 *Cook v Cook* (1986) 162 CLR 376. And for an overview of the objective standard in tort law Trindade et al, n 6, 15. Judge's findings, above n 209.

230 This arises from *Goldman v Hargrave* [1967] 1 AC 645. Also see Harold Luntz and David Hambly, Torts: Cases and Commentary (5th ed, 2002), 453; As described in the judge's findings, above n 209.

231 Trindade et al, n 6, 526. See judge's findings, above n 209.

will import at least some common law principles into its formulation of how the environmental duty of care ought to be applied.

The moot confirms the tension between the principles of negligence and principles of environmental protection (encapsulated in ecologically sustainable development). It suggests that a duty of care is able to incorporate ecologically sustainable development into an assessment of reasonable practice (informing the standard of care).

The experiment suggests some difficulties that may arise, notably limits to stewardship obligations that may be required: 'By stretching the common law to encompass protection of the environment using ecologically sustainable development the hypothetical statute applies a duty of care to the present and the future. But the common law only recognises a duty of care between people at the time of harm, rather than a perpetual obligation to the environment',[232] and that liability is: 'limited to environmental harm and the obligation is only to take reasonable measures. This does not put the entire social cost of protecting the environment on the farmer, nor is liability strict, thus the duty to take reasonable care only provides environmental protection to the extent of ordinary negligence principles. These are the obligation on the person bringing the action to prove a case, to prove that the farmer has done or failed to do something, to prove that the particular act or omission caused the relevant environmental harm to the relevant land, to prove that the act or omission was unreasonable – not just that it caused harm but that it unreasonably caused harm. These demand that a claim is established with specific evidence, since general beliefs about what is good for the environment cannot be substituted for facts.'[233]

These views suggest that giving effect to the duty of care will encounter problems of evidence, the practicality of bringing an action, the standard of reasonable measures and the difficulty of reconciling ordinary negligence principles with environmental protection.

The post moot focus group

Will statutory duties be an efficient instrument?

This discussion centred on the question: *Will a duty of care, as a regulatory instrument, help to reduce the costs and complexity of environmental disputes?* The main issues raised in response to this question were: enforcement and standing, standards and codes, transaction costs and harm related to the environment.

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232 Judge's findings, above n 209.

233 Judge's findings, above n 209.

Participants suggested that (as currently formulated) Australian statutory duties of care may not address significant conflicts over farmers' stewardship of natural resources. Such disputes are typically between farmers and other members of the community rather than between farmers and the government. Legal enforcement of the duty is unlikely because government budgets and political restraints on taking legal action tend to make government action relatively rare (and likely only when the issues are major and intervention is politically opportune). The complexity of the issues that arose in the moot court suggests that government legal advisors would be wary of attempting to enforce this legal obligation. It was suggested that political decisions that create exemptions for farming (e.g. native vegetation) or codes of practice that are only enforceable by the Minister (e.g. forestry) demonstrate the unwillingness of government to encourage community action. It was highlighted that the common law duty of care is well developed and well understood. It was suggested that community standing to apply an environmental duty could be a powerful impetus to achieve the underlying sustainability objectives, and also to establish clearer standards for the farm sector. However this was expected to be politically unpalatable.

The participants highlighted that even providing standing for private actions is unlikely to be sufficient to create a vibrant process to generate widely understood standards through legal processes (as is the case with the evolution of community norms through the common law). A broader right of action already exists for environmental matters in NSW,[234] and federally with the potential for anyone to refer a matter to the Minister under the *Environmental Protection and Biodiversity Conservation Act* 1999 (Cth).[235] These approaches tend not to be used because of transaction costs and problems of proof. Litigation is often protracted and costly. Costly technical and scientific experts are a necessary part of litigating complex environmental issues. Evidence gathering, particularly when issues arise on private land, is also difficult. This is why existing avenues for community action for protection of the environment are not widely exploited. The many hurdles to a community member bringing action suggest that community standing to take action under an environmental duty of care is unlikely to 'open the floodgates' of litigation.

The hypothetical statute demonstrated that a duty of care for the environment can be created but proving a breach will involve complex evidentiary issues. Defendants are likely to refer to the reasonable care standard of tort with its requirement for a duty of care (such as a demonstration of

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234 Open standing exists under s.123 of the *Environmental Planning and Assessment Act* 1979 (NSW). That gives any person the right to bring proceedings before the court and seek an order to remedy or restrain a breach or threatened breach of the Act. This right of standing does not rely on rights being infringed by the breach.

235 Under the *Environment Protection and Biodiversity Conservation Act* 1999 (Cth) there is a type of open standing for an interested person to refer a matter to the Minister far assessment of whether it is a breach or likely breach of the Act.

foreseeability, being able to define a relevant standard of care and causation). These are likely to be very hard to demonstrate for farming and environmental degradation. These common law requirements have not been expressly excluded from the statutory duties. The moot participants could, as a result, see no alternative for the judiciary and advocates but to incorporate them into the process of applying a duty of care.

A problem with greater specification of environmental duty standards is that each geographic area has its own characteristics, issues and concerns. What is reasonable in the New England would be different from that for the Riverina.[236] This poses difficulties in creating meaningful interpretative codes for application of an environmental duty as any obligation would be very general to account for such differences, and consequently may prove meaningless in practice.[237] Relying on a code of practice does nothing to address the practical problems of knowing when the code is breached, what happens then, and deciding what needs to be proven in enforcement proceedings. These considerations suggest that government may have acted counter-productively in seeking to limit the duty to administrative action by government. This may result in the duty of care becoming meaningless in practice if not applied.

Participants highlighted that while litigation may be an unattractive process, in practice strong and enforceable standards are not always a bad thing, even if initially opposed by those who fear their impacts. An example was given of building regulations controlling development where there is potential for significant environmental impact. The building industry is heavily regulated. This is accepted because regulations do reduce transaction costs as well as reducing risks. It is an advantage for developers to know what can be built where, what the standards are for the building materials, the way they are put together, and how that should be done.[238] It is also an advantage for purchasers and occupants.

An interesting analogy to a duty of care for the environment is the employers' duty of care to the worker created by occupational health and safety legislation. In NSW, an employer must ensure a safe system of work. There are no guidelines that provide a defence to prosecution but failure to comply with any regulation may be used as evidence of a breach. In Queensland the test is failure to do what is reasonable. Compliance with regulation or standards is a defence, where they exist, but

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236 Second respondent in post moot discussion, (Armidale, 24 September 2008).

237 Second appellant in post moot discussion, (Armidale, 24 September 2008).

238 First appellant in post moot discussion, (Armidale, 24 September 2008).

otherwise the standard is to take reasonable measures. A breach is a criminal offence, but standards and responsibility derive from civil law.[239]

In discussion it was suggested that a different approach to environmental duty of care could be to use a mix of liability arrangements. There could be *prima facie* strict rules for environmental harm but with a defence of duty of care; the onus being on the defendant to prove that his conduct was in accordance with reasonable care.[240] This approach would ensure protection for those issues that government or environmental interests identify as fundamental but allow for flexibility in relation to other issues that are less serious.

The participants reflected on how possible multiple meanings created legal difficulties with applying the environmental statutory duty of care. When the term 'duty of care' is used, lawyers naturally think of tort, and begin to explore how close a fit is the situation with the type of duty and harm requirements for negligence.[241]

This seems to be quite different to the understanding of those who are involved in farming or the environment. Those who talk about duty of care in farming have a lay understanding as 'care for the environment'. A sense of duty for the environment involves the landowner taking a long-term view, and surrendering some of the exploitative right inherent in fee simple for the benefit of future generations and the world generally. Scepticism was expressed about whether this objective could be achieved by the creation of a tort-like duty, for the reasons discussed above.

The evidentiary challenge

The second question focussed on exploring: *What sort of evidence is going to be needed in these matters?* This question led to a discussion of factual evidence about community attitudes (expectations) about farming and/or environmental protection and how those might be effectively incorporated into the legal mechanism. Defining the content of the standard of care was highlighted as a significant evidentiary challenge.

A difficulty highlighted was distilling what the community might see as an appropriate norm, and what a court would require as evidence to allow it to apply a probability judgement about the existence of this norm. The potential use of specialist witnesses or perhaps a specialist court to provide a way of establishing the objective standard was discussed. There was consensus that the transaction costs of proving the nature of community expectations are likely to be very high. This

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239 First respondent in post moot discussion, (Armidale, 24 September 2008).

240 Judge in post moot discussion, (Armidale, 24 September 2008).

241 Judge in post moot discussion, (Armidale, 24 September 2008).

requires proving (to a judicial standard) the existence and breach of a duty of care where community standards are highly variable, as well as proving the foreseeability and causation of harm derived from the common law form of the duty.

The role of industry codes in assisting to define the required standard of care was explored. It was proposed that in the tort version of a duty of care, breaches of codes and standards are no more than evidence of a breach of duty: 'You can try to prove negligence notwithstanding, but I'm wondering if standards and codes could provide some each-way bet. That is if you do this and this you have met the standard, even if I can prove that's negligence, you still get over the line, provided you can prove that the breach did not cause harm or that the standard was miscued'.[242] This suggests that even the use of supportive industry codes may be less influential than policy makers expect for how a court may evaluate satisfaction of a duty of care. The discussion highlights the important distinction between reference to codes as a defence or as a requirement.

The way that a code is used to determine reasonable care is likely to prove important to defining practical meaning. One possibility discussed was a statutory formula that made compliance with an industry code *prima facie* reasonable, and non-compliance *prima facie* unreasonable.[243] Farmers would most likely accept the duty of care as a set of standards that provide *prima facie* proof of compliance. However, to be credible judicially it is likely that these would have to be a robust system similar to Australian standards. This is because courts are highly likely to be made aware there is a range of competing standards for farm management, all vying for recognition. The courts are likely to look for integrity in farming industry codes, for them to be adopted as a definitive legal standard.[244] It was suggested that merely formulating standards or codes may not be sufficient for defining the standards of stewardship that are applied: 'Whatever the standard is, it will change and needs to be linked to education, so farmers can keep apace with the developing standard of best farming practice'.[245]

Creating an effective environmental duty of care

The final question was: *If you were charged with creating a practical duty of care to achieve the policy goals of reduced complexity and cost, what would you do?* The participants were invited to consider what would be required to achieve the outcomes that they believe environmental duty of care is intended to achieve.

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242 Judge in post moot discussion, (Armidale, 24 September 2008).

243 Judge in post moot discussion, (Armidale, 24 September 2008).

244 First appellant in post moot discussion, (Armidale, 24 September 2008).

245 Second appellant in post moot discussion, (Armidale, 24 September 2008).

It was noted that there is a number of non-legal challenges associated with the use of a duty of care that need to be resolved. These include: access to information, the willingness of those under the duty of care to have their activities tested by the community, and agreement as to what the standard is going to be. Acknowledging these the focus group highlighted institutional structure and a model of enforcement as necessary for an effective duty of care. These highlight that the duty of care is a great slogan that is not yet feasible for meaningful use in regulating farmers' natural resource management.

Institutionally, property was highlighted as a hurdle to using the common law effectively for defining environmental responsibilities of farmers. Two issues raised were: the lack of ownership of (wild) animals, and absolute ownership in freehold.[246]

It was proposed that to overcome these types of fundamental impediments may require an alternate institutional approach, a statutory regime where someone has standing to prosecute for breaches of stewardship duties and funding to do it. It was suggested that open standing such as in s.123 of the *Environmental Planning & Assessment Act* 1979 (NSW) and a concentration on civil remedies rather than criminal prosecution might be more effective in dealing with environmental harm: this is because the civil standard is less onerous than the criminal requirement of proof beyond reasonable doubt.[247] It was also felt that development control regulation provided a useful model, with its public disclosure of the development consent and its terms of approval ensuring greater community transparency.

It was suggested that a more radical overhaul could involve a tiered structure of duties for environmental protection and natural resource management along the same lines as directors' duties under the *Corporations' Act* 2001 (Cth).[248] The fundamental principles of an overarching duty to the environment could be created nationally by Commonwealth legislation, enforceable through the Federal Court. The next level would be an industry code(s) with more specific duties, enforceable in the Supreme Court of each state. The next level would be a regional code(s) with specific regional arrangements, enforceable in the local court. This would enable the duties and codes to apply to farmers across all industries and regions.[249]

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246 Judge in post moot discussion, (Armidale, 24 September 2008). The issue of wild animals related to the problem of invasive, transitory species traversing multiple titles. The issue of freehold related to the problems of imposing unspecified constraints on the right of freehold exploitation, and practical problems of supervision of activities on private lands.

247 Judge in post moot discussion, (Armidale, 24 September 2008).

248 *Corporations Act* 2001 (Cth). Directors duties, above n 3.

249 Second respondent in post moot discussion, (Armidale, 24 September 2008).

Information availability is a precondition to effective enforcement. For example, the *Greentree* cases (harm to the ecological character of a Ramsar wetland) started because somebody happened to be flying overhead and took some photographs of a bulldozer working.[250] Otherwise the problem probably would not have been detected. The whole state is aerially photographed now, which should be available on the web, along with details of consents and approvals. That would allow interested persons to observe what's happening and seek an injunction when they think something is wrong.[251] Another illustration of the difficulties of information access in this area of law is private native forestry agreements and property vegetation plans. These are the equivalent to development consents, but are not public.

Researcher Conclusions from the Post Moot Discussion

Participant discussion about the efficiency of a statutory duty of care for environmental protection by farmers highlights that:

1. Even without any attempt to constrain the environmental duty of care to an administrative application, there are practical impediments to effective application of the duty by private action;
2. The intersection between the common law understanding of the duty of care and its broad statutory formulation may become significant in the implementation of a statutory duty of care for environmental protection;
3. It is possible that due to difficulties in reconciling the tort law duty of care and the environmental duty in its statutory form, the application of the environmental duty will be significantly constrained; and
4. There are significant practical impediments to the legal application of the environmental duty of care.

The focus group discussion highlighted that evidentiary requirements for the application of a statutory duty of care for protection of the environment by farmers are likely to be complex and costly. This is likely to require proof of community norms about land stewardship (virtuous

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250 This was a series of cases about harm to the ecological character of a Ramsar wetland after its clearing and cultivation for cereal cropping. The case was brought before the Federal Court of Australia as an alleged breach of the *Environment Protection and Biodiversity Conservation Act* 1999 (Cth). See the series; *Greentree v Minister for the Environment and Heritage* [2005] FCAFC 128 (13 July 2005); *Minister for the Environment & Heritage v Greentree* (No 2) [2004] FCA 741 (11 June 2004); *Minister for the Environment & Heritage v Greentree* (No 3) [2004] FCA 1317 (14 October 2004); *Minister for the Environment & Heritage v Greentree* [2003] FCA 857 (8 August 2003).

251 First appellant in post moot discussion, (Armidale, 24 September 2008).

performance) to a level of probability that will satisfy judicial standards. This is likely to be difficult and may conflict with the standard of minimal accountability normally arising from a duty of care.

Stating legislatively that compliance with an industry or other code will be satisfaction (or prima facie satisfaction) of a duty of care may not reduce the complexities to the degree that might be expected by farmers and farming policy makers. It should be expected that the court will need to satisfy itself that those codes do encapsulate objective and credible standards with a level of specificity that is useful as a standard of management for landowners in different contexts.

The participants in the moot were unconvinced that the administratively applied duty of care will have much effect in practice. They suggested that a more rigorous approach, using a different hierarchical structure will be needed if the duty is to have any material impact on the behaviour of those farmers who are not oriented towards sustainable use of their landscapes.

Overall the discussion suggests that as presently formulated the duty of care is likely to be limited to persuasive use, and that:

1. The significant evidentiary, standing and legal principle problems that emerged from the moot court attempt at application of a version of the environmental duty of care will result in significant transaction cost and uncertainty of outcome in bringing an action;
2. As a result, since only administrative bodies have standing under the legislation, it would be only in the most extreme of circumstances that any application of the duty would be attempted; and that
3. If applied, the potential for appeal against any determination on legal grounds (given the uncertainties of meaning of the duty in practice, against the background of the common law history of the principle), would be great.

Under these circumstances, and given the other more specific arrangements for prosecution of harms to the environment, it seems unlikely that this new legal principle will prove legally significant.

Chapter 5: Conclusion

Overview

This thesis reports a research program based on testing three propositions:

Proposition 1

There are competing meanings for the duty of care and what it can be expected to achieve. This arises because there is an unresolved debate about what norms for environmental responsibility should be.

Proposition 2

Incorporating a duty of care into statute conceals the unresolved contest of competing meanings. Alternative interpretations are likely to be contested in any legal disputes, as they would result in materially different outcomes.

Proposition 3

With contested definition, the common law approach to interpretation of the duty of care is likely to be used in disputes. This will lead to a refinement of meaning, which must fail to satisfy some of the competing expectations.

> ***Proposition 3.1***
>
> Legislation alone cannot define a duty of care for natural resource management by farmers to a level that would be necessary to resolve a legal dispute.
>
> ***Proposition 3.2***
>
> The common law will have to be used to provide detailed interpretation of the meaning in this context, to provide sufficient additional interpretative support to apply the statutory duty.
>
> ***Proposition 3.3***
>
> A statutory duty of care for natural resource management by farmers in the current form is not likely to effectively achieve some of the desired objectives of more sustainable land use.

These propositions derive from the observation (discussed in Chapter 1) that there is inconsistency in the application of duty of care in statutes in Australia, with drafting approaches using either a version of the duty of care that is lengthy and detailed or a shorter version that may be expanded by reference to non-statutory standards or guidelines. This inconsistency, as well as the general

discussion of environmental duty of care, indicates that there is an underlying problem about the concept's meaning. This is the substance of Proposition 1.

An argument of the thesis is that the implications of this inconsistency, coupled with the focus of statutes on the administrative enforcement of the duty of care with an attempted exclusion of civil rights to take action for breach of the duty, will lead to legal disputes. This proposition (Proposition 2) is based on:

- The history of analogous attempts to create administrative instruments directly from sustainability policy, notably the history of the application of the precautionary principle, and;
- The demonstrable likelihood that any significant attempt to apply the administrative rule to constrain the exercise of a property right will involve economic cost to rights holders. Depending on the particular circumstances, this may trigger a right of administrative appeal.

Proposition 3 highlights that if the issue of existence of duty of care does come before a court – and in the absence of other definitive interpretative processes – courts will seek precedent or detailed guidance to help it apply this new statutory form of the duty of care. The legal profession and judges are likely to seek legally conventional interpretative norms. While the term 'a duty of care' is used in a number of contexts in law, the most likely interpretive guidance will be from the common law duty of care from negligence: it being the foundation for other applications of duty, with substantial development in jurisprudence, and widely understood by the legal profession.

Overall, the propositions were supported. This final chapter discusses the results of the three parts of the research program (a literature review in Chapter 2 and two empirical research streams detailed in Chapters 3 and 4), as well as highlighting insights arising from the research and future possible research streams. This chapter will refer to three refereed, published papers, which form an integral part of this thesis submission; included in Appendix 1. In summary, the discussion in the papers cover:

1. **Appendix 1.1*: (M L Shepheard and P V Martin 'Social 'Licence to Irrigate: The Boundary Problem'* (2008) 27(3) Journal of Social Alternatives Justice and Governance in Water*)***

   The first paper highlights the practical implications of the use of duty of care as a means for drawing the boundary between public and private interests, and relates this to the broader social and economic challenges associated with the social license to operate. The paper notes that without a sensible method for defining these boundaries, managers face a conflict between their legal duties to manage the enterprise in the (economic) interests of its owners, and the vaguely defined expectation that they will meet unspecified social obligations. Such practical conflicts between private and public interest are likely to be the seed for the conflicts that will be the

trigger for the intervention of the courts. The discussion thread in this paper, naturally, follows much of what has been detailed in Chapters 1 to 3.

2. **Appendix 1.2: (*Mark L Shepheard and Paul V Martin* 'The political discourse of land stewardship, reframed as a statutory duty', *Centre for International and Public Law-Australian Centre for Environmental Law Workshop, Australian National University August 2009 (forthcoming chapter in Environmental Discourses in Public and International Law, 2010)***

   The second paper examines the intended solution – the use of duty of care – to the challenge posed in the first paper, but examines the issue as an illustration of a broader clash of paradigms. This paper traces a history of substantial difficulties in legal application as concepts drawn from political discourse find their way onto the statute books. It applies discourse theory to consider why concepts developed for the purposes of political narrative and ambiguous consensus-seeking are likely to encounter impediments when the discourse moves from the political to the legal arenas, and from international agreements to individual relationships. It explores the clash of paradigms that stand behind the enactment of the duty into legislation. The paper argues that competing concepts of stewardship, sustainability and property rights emerge against the background of public rhetoric seeking care of the environment. The dominant paradigm of private property is expected to encompass ecological values. As noted by Sax,[252] to believe that property rights are a reliable guardian against exploitation of the environment requires a leap of faith. A mainstream paradigm of natural resource management exists that emphasises private exploitative rights within a framework of limited and tightly defined environmental accountabilities.

3. **Appendix 1.3**: (***Mark Shepheard and Paul Martin* 'The Multiple meanings an practical problems with making a duty of care work for stewardship in Agriculture' *(2009) 6 Macquarie Journal of International Comparative and Environmental Law 191-215***)

   The third paper develops the legal component of the arguments discussed in the previous two papers, embodied predominantly in Proposition 3 of this thesis. It considers the implications for the judicial system striving to give effect to the will of parliament whilst protecting the interest of the citizen. It suggests that the outcome of legal interpretation is likely to be conservative. As with the previous two papers, and indeed this thesis, the third paper outlines some of the alternative means for imposing social obligations upon private resource owners, and the arguments that have been made supporting a broad duty approach. It considers prior attempts to embed new resource governance concepts into the law, and the extent to which these have been refined and adjusted by the courts in their attempt to apply the principles in practice. It

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252 Joseph Sax, 'Environmental Law Forty Years Later: Looking Back and Looking Ahead' in Michael Jeffery, Jeremy Firestone and Karen Bubna-Litic (eds), *Biodiversity, Conservation, Law and Livelihoods: Bridging the North-South Divide* (2008) 9.

highlights the difficulty in relying on such broad principles when courts generally seek more specific process guidance drawn from precedent, and the likely consequences of such reliance (the speculation of what might be the consequence is summarised in Proposition 3 and tested, with the results of the test discussed in Chapter 4 of this thesis).

The results

To test the propositions, this thesis has taken an empirical rather than a doctrinal approach. In part this is because in law any doctrinal position is contestable, and in this particular instance the doctrinally correct decision on the meaning of a duty of care is far from clear. Any application of the duty of care would reflect the specific statutory formulation that is used: the facts and specific context within which this formulation is applied, the way in which the administrator decides and expresses their decision, and the way in which the arguments are developed in any resulting litigation. It was only necessary for the purposes of the research for this thesis to show that circumstances exist under which a court may have to resort to the common law to apply the statutory duty, not that in all possible circumstances the courts would do so.

The literature review (Chapter 2) and the interviews results (Chapter 3) provide evidence for the potential difficulty of reconciling social and legal conflict about the extent of farmers' responsibility for environmental protection, regardless of the legal mechanism used. Expectations range along a continuum supporting private rights of exploitation subject only to legally defined minimal limits of accountability, to a requirement for stewardship of natural resources based on a high standard of virtuous management practice. This range of expectations speaks of the great potential for conflict about practical meaning of the term 'a duty of care'.

Whilst the thesis chapters have focused mostly on the specifics of a duty of care, the discussion in the three papers (Appendix 1) argue that this is not an isolated problem. The challenges of a duty of care are an exemplar of a broader issue in translating political aspirations of increased environmental stewardship into legal instruments to achieve that outcome (within a social and economic system based on private property rights). In summary, the potential for such conflict include:

1. The intrinsic conflict between legitimate policy goals. This is between the primacy of private property as exploitive right (subject to clearly specified legal obligations of minimal accountability) and meeting the increasing pressures for ethically motivated obligations of stewardship (virtuous practice), which are reflected in political discourse and international law related to sustainable development.

2. The disjunction between political or policy discourse and legal process. Particularly important is the extent that ambiguity is acceptable (or even useful) in shaping the discourse. Law, with its functional role and its impact on individual interests is 'uncomfortable' with levels of ambiguity that are convenient in other settings.
3. The process of transfer of concepts from the political/international arena to the legal/local level, illustrated by the adoption of the term 'a duty of care' with specific legal functions as an approximation for policy intentions of social accountability. The potential for conflict arises when concepts that have a purpose of achieving political consensus (such as sustainable development) are adopted as legal requirements or principles without their being established interpretative processes to support their application.

The embrace of a statutory duty of care for environmental protection in Australia demonstrates the difficulties. Political adoption of a legal term with specific and well-developed meaning for other purposes has attempted to cut short a complex social debate about the boundary between private right to exploit (constrained by specific legal obligation of minimal accountability) and the public stewardship obligation of farmers. Competing expectations remain unresolved, though perhaps refocused into a debate about a legal term (a duty of care) to which specific legal outcomes may be attached that affect private economic interests. These issues are canvassed in depth in the attached papers.

The results of the moot experiment (Chapter 4) provides evidence that the creation of a statutory duty of care by the legislature, without resolving the underlying tensions over boundaries of responsibility to the environment, has left many practical issues unresolved. The results show that the tensions about the meaning and implication of an environmental duty of care are transferred from the political to the administrative arms of government and then to the courts. Many ambiguities embedded in the statutory duty translated into a complex and contestable process of administrative and legal decision-making when tested in the moot court experiment.

As expected legal application by the advocates and judge of the statutory duty of care in the experiment (described in Chapter 4) was heavily influenced by common law reasoning processes used in negligence to define reasonable care (proposition 3). In discussion after the moot court experiment, it was clear that the opinion of all the advocates and the judge about the potential for the practical application of the duty of care is significant is that, for pragmatic reasons, it would only be the most exceptional of cases where a lawyer would recommend that a government agency seek to formally apply the duty of care. In most instances, it is likely that that other less ambiguous legal provisions such as offences under statute such as the *Environmental Protection and Biodiversity Conservation Act* 1999 (Cth) would be a less treacherous path to follow.

Such an approach has significant implications for the legal determination of where the boundaries of a farmers' responsibility lie along the continuum from the private right to exploit with minimal accountability to social stewardship of natural resources. Results from this experiment show that the expectations of the social stewardship advocates are ones most likely to be disappointed.

It may be, that over time, through court interpretation and evolution of practice, the contestable issues will reduce. However, the research results demonstrate that the current conflicting understanding of environmental duty of care has the potential to be a material impediment to its practical application in better defining farmers' responsibility for natural resource and environmental protection.

In short, the results of the research in this thesis show that the expectations that a statutory duty will *per se* clarify and resolve the issue of environmental stewardship are unduly optimistic.

Implications of results

Where does this leave the future of the statutory duty of care to define farmers' environmental protection responsibilities? It would be unduly negative to say that it is likely to be of no real effect, though, as already noted, its effect is not likely to be that optimistically anticipated by its advocates.

The statutory duty of care does provide a new tool for administration in its role of protecting the public interest. The negotiation of the content that is implied by the statutory formulation can help to more clearly define the boundaries of responsibility. The existence of a legal obligation that is ambiguous may generate an impetus to resolve the ambiguity by negotiation and consensus.

Shifting the debate from the political arena into the administrative and legal spheres also has a practical effect. Because specific decisions that impact upon individual interests must now be contemplated, the pressure to resolve the ambiguities is increased; in the end result, if they cannot be resolved by consensus, they are likely to be resolved (however unhappily for some) by the courts. The legislation does signal an important shift from the metaphysical debate over philosophy to the practical issue of contests between people over their tangible interests.

The lessons learnt from the positive verification of the propositions in this thesis are:

1. **Clearer boundaries of responsibility and norms for stewardship are desirable to help resolve the rights and responsibilities of farmers for secure access to resources, appropriate principles to guide behaviour once responsibility is identified and cost apportionment between society and farmers.** This thesis argues that expectations of responsibility exist in formal and clearly defined legal forms and informal social forms. Social expectations are diverse, incorporating economic, political, ecological, social and cultural

concerns. They are poorly defined in practical terms and often couched as arguments about stewardship or ecologically sustainable development. They represent a social licence, unconstrained by legal rights. This is a significant non-legal force in defining boundaries of responsibility due to the impact on access and use rights. Those seeking ongoing access to natural resources are continuously required to succeed in these social and political negotiations, suggesting that the exercise of private property interests is materially constrained by expectations of the community for stewardship.

2. **The statutory versions of a duty of care for environmental protection and stewardship of natural resources are worthy as general political principles of aspiration but do not specify the practical meaning of the obligations they create.** Such a state is likely to lead to disputes where the problem of uncertainty will have to be resolved. Disputes are likely to involve the courts and the application of common law principles which have proven politically appealing to interest groups as a self regulatory approach. Experience with stewardship as a policy approach to farming has been used to highlight confusion about whether the standard society expects of farmers is accountability or virtue. Although the virtuous connotations of stewardship and a duty of care are readily accepted politically, when it comes to specifying performance with particular consequences for private (economic or proprietary) interests the terminology may prove to be slippery.
3. The duty of care is a legal process for setting boundaries of responsibility based on reasonable care. There are competing meanings about what that boundary represents, and a range of competing expectations about what it should mean in practical terms. The expectations reveal a tension where the expectation of stewardship (virtuous performance) does not reflect the legal use of a duty of care to define a boundary of responsibility based on reasonable care (minimum accountability). Within this tension about meaning, the term 'duty of care' creates a sense of false coherence. Thus **the single term 'duty of care' conceals competing expectations as diverse as strengthening the property rights and right to farm claims of farmers, or strengthening public interest claims over farmers' management of natural resources. Such competing hopes are unlikely to be reconcilable in practice and reinforce that a statutory duty of care will need enforcement before its content is known with greater certainty.**

What this thesis has done is identify substantial challenges to the expectation that translating policy rhetoric into laws can and will resolve underlying tensions. This is perhaps not surprising, for the law is only an instrument of society. It is possible through the mechanism of creating new laws to effectively delegate the responsibility for conflict resolution to the courts, but that in itself is not

resolving the conflicts. This research has reinforced both the limits and the opportunities of using the law as a circuit breaker for irreconcilable views about people and the environment in society.

Limitations of the research

There are limitations to the research documented in this thesis. It explores the possible practical issues surrounding implementation of statutes containing a duty of care, and potential consequences of its implementation. It does not explore in-depth legal technicalities such as jurisdiction or standing, though such matters will be important in the application of statute, and did become relevant in the design of the moot court experiment.

The research was partly funded by the Cooperative Research Centre for Irrigation Futures and the University of New England. As a result, the focus of the research was on rural implementation of the environmental duty of care, particularly related to irrigation farming. This shaped the selection of the interview sample, and the scenarios that were explored in the experiment. This emphasis is in part justifiable by the nature of the legislation itself, as its focus and application on natural resources and environmental protection automatically affects the farm sector.

Observations made about effectiveness of a statutory duty of care are likely to have broader application but were not explored in the study.

Future Research

Two research streams naturally present themselves from the research conducted for this thesis. The first continues the investigation into a more coherent application of duty of care. The second is the development of a better methodology for testing the efficacy of statues.

Developing the duty of care

For farmers to successfully defend their social licence requires them to reconcile their self-defined views of responsibility with greater sensitivity to social expectations for environmental protection and natural resource management. In effect this implies a clear performance strategy for farm stewardship, probably involving stakeholders to help better define publicly acceptable boundaries of responsibility. Clarifying expectations could be the basis of such a process, a start point for engagement with stakeholders that helps farmers to deepen their understanding of community expectations.

With expectations identified, the farm sector might then examine the appropriate measures for reporting performance, and the processes required to do so. With an administrative duty, the

dialogue (to the extent that it occurs) is with government, to whom the duty is owed. Whilst this provides a defined counterparty for the dialogue, it does not necessarily generate the type of dialogue with a heterogeneous community that is involved in issues of social licence (the first paper in Appendix 1 discusses an approach to clearer definition of farmers' social licence and boundary's of responsibility therein).

Boundaries of responsibility should ideally allow the farm sector to specify: the issues and measures of performance; the priorities for action and performance reporting; and the internal farm business systems to be used to satisfy the accountability requirements. Such a statement of external accountabilities and intentions requires a clearer specification of stewardship (good citizenship) for environmental performance between farmers and society (the competing discourse of stewardship, between accountability and care is discussed in greater detail in the second paper in Appendix 1). Ideally, this ought to provide farmers with the ability to defend their social licence by:

1. Providing a focus for specifying measures of performance that are low cost and easily understood, applicable at the farm scale and which allow connection of farm practice to landscape and catchment scale impacts
2. Providing for an overlap in values, priorities and ecological literacy between producer and community expectations
3. Producer motivation to implement a targeted and standard driven approach to performance management
4. A coordinated approach to agriculture that is consistent with community expectations about performance, guards against unsuitable practice and drives innovation
5. Support and leadership from industry bodies in providing communication and support for effective change
6. Realistic connection between significant environmental improvement and business financial gains

Aside from the process of defining a clear boundary of responsibility, there are other law and policy issues associated with the duty of care that could benefit from an empirical approach. These include greater understanding of the conception of environmental harm,[253] exploring whether the best function a duty of care can provide is a framework for knowledge development about environmental protection,[254] the effectiveness of a sanctioning versus compliance approach to regulating

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253 Jane Holder and Maria Lee, *Environmental Protection, Law and Policy* (2007), see p. 342.

254 Peter Cane, 'Are environmental harms special?' (2001) 13(1) *Journal of Environmental Law* 17.

environmental protection,[255] and whether the clear definition of liability and a private right of action might create a more efficient regulatory approach.[256]

Developing a methodology

Creating an empirical test to demonstrate the extent that court interpretation of the statutory duty of care may require resort to the common law, and the potential effect of this upon the interpretation of the duty, required a novel empirical approach. As well as providing substantive support for the propositions, the research has demonstrated the viability (and limitations) of the moot court as an experimental method for testing the effectiveness of statutes.

The thesis provides a detailed evaluation of the application of the moot experiment approach. No similar empirical approach is documented in the contemporary literature. The research indicates that this experimental method, while expensive and complex, could help predict and possibly avoid some costly failures of legislation to efficiently give effect to the intentions of Parliament. The third paper in Appendix 1 discusses the possibility of using the moot court in detail.

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255 Keith Hawkins, Environment and Enforcement-Regulation and the Social Definition of Polllution (1993); Gardner, above n 1.

256 Martin, above n 104; Peter Grabosky and Neil Gunningham, 'The Agriculture Industry' in Neil Gunningham, Peter Grabosky and Darren Sinclair (eds), *Smart Regulation, Designing Environmental Policy* (1998).

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APPENDICES

APPENDIX 1

A1.1: M L Shepheard and P V Martin 'Social 'Licence to Irrigate: The Boundary Problem' (2008) 27(3) Journal of Social Alternatives Justice and Governance in Water)

A1.2: Mark L Shepheard and Paul V Martin 'The political discourse of land stewardship, reframed as a statutory duty', Centre for International and Public Law-Australian Centre for Environmental Law Workshop, Australian National University August 2009 (forthcoming chapter in Environmental Discourses in Public and International Law, 2010)

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A1.1: Social Licence to Irrigate: The Boundary Problem

Mark L Shepheard and Paul V Martin 'Social Licence to Irrigate: The Boundary Problem' (2008) 27(3) *Journal of Social Alternatives Justice and Governance in Water* 32.

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Abstract

The ability of an irrigation business to use water depends on having a property right to access water, but exercise of this right also depends on government decisions to allocate water or invest in water infrastructure. While this secure property right may be necessary, it is far from sufficient. A social licence is also needed.

It has been suggested that a legal 'duty of care', or triple bottom line reporting will protect that social licence. This article suggests that such rhetoric masks a fundamental management problem of the lack of boundaries to social accountability. Managers face a conflict between their legal duties to manage the enterprise in the (economic) interests of its owners, and the vaguely defined expectation that they will meet unspecified social obligations.

Introduction

Social licence is a voluntary unwritten consent that a community attaches to resource use. The importance of social licence to farming is seen in processes like the re-negotiation of water sharing, or the continuance of self-management arrangements. More dramatic examples exist when a community punishes actions that are legal but violate community expectations (such as in the recent conflicts about mulesing).

A social licence depends on satisfying social expectations (Gunningham, Kagan et al. 2002; Lynch-Wood and Williamson 2007). Expectations are not constrained by legal rights or obligations (Lynch-Wood and Williamson 2007) and do not necessarily respect private ownership. Ownership of a legal right to resources does not guarantee community support for the exercise of that right. Rather social licence depends on law, beliefs, relationships, administration and expectations (Raff 2003; Robertson 2003; Hone and Fraser 2004a; Hone and Fraser 2004; Macintosh and Denniss 2004; National Farmers' Federation 2004; Shine 2004; Raff 2005; Spencer 2005; WWF 2005; Lyons and Davies 2007). Many aspects are inherently political, and not necessarily 'logical' from the point of view of an irrigation business manager.

Property is about the rules governing access to and control of resources, that exists as a relationship between people (the giver and receiver of the access right) (Stallworthy 2002 see chapter 3, p 77-78). A water entitlement as a form of property involves two property rights. One is the (tradable) licence to extract some percentage of the available water, with availability being administratively determined. The second is the use right (usufruct) once that water is available. These rights are continuously adjusted through mixed political, legal and administrative processes. These include negotiation of water sharing plans and decisions about annual allocations, the development of laws to determine the priority of water access, and public investment in water infrastructure. These processes determine the conditions for trading, use and the availability of water. Many changes in access to water occur with limited regard to the apparent security (or property right) that a tradable entitlement to water suggests.

It is normal for property rights to be subject to constraint. Land zoning, natural resource management legislation, and industry or supply chain codes of practice are all formal expressions of social expectations of behaviour.

Social responsibility debates are important to irrigation businesses (Gunningham 2004). Water reform has changed how the water resource is shared, making the tradeoffs between the environment and urban areas and farming more apparent. Water enterprises are continuously engaged in a negotiation with society. Justification of the social licence is continuously required to succeed in these negotiations, suggesting that in the longer term the exercise of private property interests is materially constrained by accountability to the community.

Accountability and boundaries of responsibility

Accountability exists in three forms (Figure 1). Compliance with formal legal responsibilities is the first. These formal requirements may be daunting, but they are generally well defined. There is little choice but to comply. The second form is the managerial responsibility of governance. Examples of managerial responsibility are a duty to manage honestly and in the interest of shareholders or the common law duty not to harm others through negligence. A business manager has little discretion other than to satisfy these requirements.

The third form of accountability is different. It is social accountability, reflecting expectations that are neither constant nor defined by any legal instrument. For example, the standards expected of a business for animal welfare, the environment, or treatment of people, are constantly changing. There are always groups whose demands go beyond contemporary practice. It is hard for the manager to say clearly where the boundaries of their social responsibilities lie.

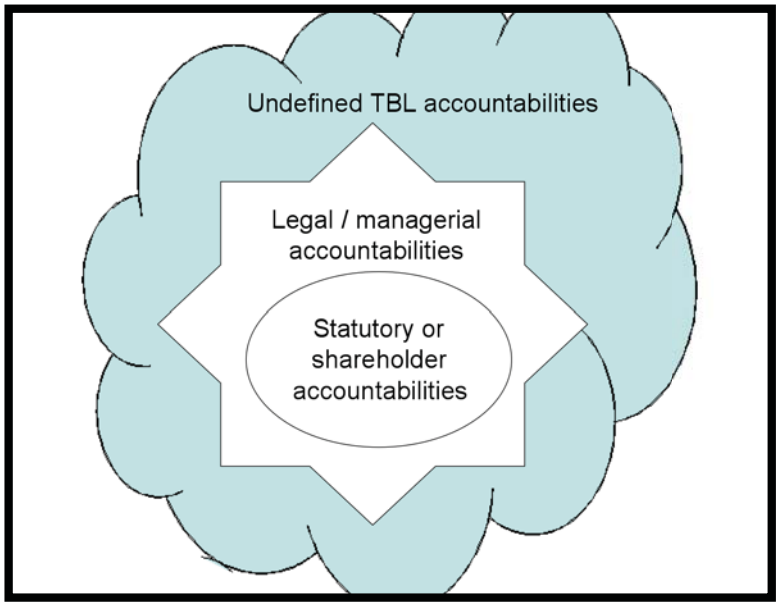

Figure 1: Three levels of accountability

Society expects that any business will not cause avoidable harm, will honour stakeholder rights and adhere to the ordinary canons of justice (Bowie 1991). Specifying such social expectations is difficult. This is because of their diversity, with the potential to cover many economic, political, ecological, social, and/or cultural concerns over the consequences of enterprise or management behaviour (Epstein 1987). Vague informal expectations of responsible behaviour are often couched as arguments about environmental stewardship and ecologically sustainable development (Warhurst 2005; McKay 2006). They do not provide guidance at a level of precision required to design reporting systems, develop investment programs and train staff in response to social concerns.

A process to objectively define the boundaries of accountability is required to focus investment where accountability truly lies. This ought to provide a basis for genuine dialogue with stakeholders, an ability to guide the development of expertise and encourage management action that is disciplined by clear accountability. Without such clarity, water businesses face significant practical problems. These include; investment of resources in pursuit of fruitless causes, naïve awareness about the relevant social and environmental issues, a weak basis for working relationships and reaction without the benefit of strategy.

Defining managerial boundaries of responsibility

Integrating corporate responsibility with business strategy requires that managers decide the social responsibilities, management goals and actions that they are prepared to embrace (Brooks 2005). Clarity about boundaries of responsibility will not be found merely by responding to the ever-shifting expectations of society. There are four logical approaches to help a business define its social responsibilities. These are: reference to norms of behaviour within society; dialogue with community partners; considering legitimacy and focussing on trust; or some mixture of these interlocking concepts. Table 1 outlines these.

Table 1: Boundary setting frameworks

Dimension	Description
Norms of Behaviour	Social 'norms' influence the expectations of industry behaviour (Hutter 2006). Morals, ethics and values help define what the accepted norms are (Epstein 1987; Bowie 1991; Carroll 1991; Moir 2001). Morals refer to personal standards of behaviour and distinguishing between right and wrong. Ethics is broader including formal and informal rules of conduct, while values are beliefs about what is valuable or important (Pearsall and Trumble 2001). Converting expectations to practice requires some correlation between the social norms, business culture and operating rules (Epstein 1987). This is more likely when there is a mechanism to hold decision-makers accountable for their performance against the norms (Bovins 1998).
Alliance Building	Alliance with stakeholders requires relationships that are significant to business performance (Longstaff 2000). Significance is based on power, legitimacy and urgency with the ultimate effect of identifying to whom responsibility is owed (Carroll 1991; Moir 2001). Alliance building requires awareness of joint interests and willingness to further those interests (Brooks 2005). This involves accepting that working together has its limits, relationships will not always be harmonious and that learning from each other is essential (Brooks 2005).
Legitimacy	Legitimacy arises from leadership and management, when a genuine dialogue with stakeholders is maintained reflecting genuine intent (Muller and Siebenhuner 2007) Strategic leadership is important to generate a conception of responsible behaviour that is evident throughout the business (Lantos 2001; Cramer 2005; Stainer 2006). Legitimacy helps to ensure a focus on what is expected under the social licence rather than trying to address an open-ended range of socio-economic and environmental ills.
Social Trust	Social trust is a key consideration in the maintenance of social licence (Fukuyama 1995; Australian Bureau of Statistics 2001; Siegrist, Keller et al. 2005; Weber and Hemmelskamp 2005; Dovidio, Piliavin et al. 2006). During resource access conflicts partisan arguments are weighed in the light of what is known about the social performance of the sector. Perceived failures of responsibility undermine credibility relative to other interest groups.

The boundary problems

A legal duty of care and triple bottom line reporting are two approaches proposed to assist with defence of the social licence to irrigate. Duty of care is a process from the common law, used to draw

boundaries of responsibility for harms inflicted on others (Cane 2002). The process has two stages. The first determines if one person owes another a duty to prevent certain harms (Fleming 1998). If a duty exists then specific behaviour is judged against the duty to determine liability.

Triple bottom line reporting is derived from accounting and performance management in business. Reporting performance against three categories (the triple bottom line) is expected to provide transparency, and through public scrutiny provide an impetus for improved performance.

Each of these approaches has limitations in providing clarity about undefined social accountability as neither reflects all the key dimensions (identified in table 1 above) of a boundary setting framework. Duty of care emphasises norms of behaviour, while triple bottom line reporting is more focussed on alliance building with the community. Both reflect aspects of legitimacy and trust (table 2).

Table 2: The emphases of accountability approaches

Attributes of Responsibility	Duty of Care	Triple Bottom Line Reporting
Norms of behaviour	Yes	No
Alliance building	No	Yes
Legitimacy	Yes	Yes
Trust	Yes	Yes

The boundaries problem in Duty of Care

Duty of care has been promoted to improve clarity about social boundaries of responsibility (Gunningham 2004). This has strong political appeal from various quarters. Duty of care is expected to clarify the responsibilities of access to resources, provide regulatory targets for sustainable agriculture, and apportion costs for public good conservation (Industry Commission 1998; Australian Farm Institute 2001; House of Representatives Standing Committee on Environment and Heritage 2001; Australian Conservation Foundation 2002; Australian Conservation Foundation 2002; Keogh 2002; The Wentworth Group of Concerned Scientists 2003; Young, Shi et al. 2003; National Farmers' Federation 2004; Watts 2004). However, from the law and the political rhetoric it is possible to distil twelve distinct meanings for “duty of care” (table 3). Multiple meaning and lack of clarity will make duty of care an awkward tool for defining clear boundaries of responsibility.

Table 3 Overlapping possibilities for duty of care

Potential interpretations of duty of care	
Is it a flexible process for determining responsibility in a range of situations?	Or is it specific rules of practice that can be clearly stated?

Is it a method for handling disputes between individuals?	Or is it a method for determining compensation claims against the state for 'taking' of private resources?
Is its principle purpose to increase accountability for public good performance of private enterprise?	Or is it a means to safeguard resource use for private enterprise?
Does the term refer to a statutory duty of care, specified by Parliament?	Or does it mean a common law duty of care, developed by the judiciary?
Is it principally a tool used to frame political rhetoric?	Or is it a legally actionable concept with specific legal content
Is its purpose to define the collective duty of resource users generally across a generic range of circumstances?	Or is it intended to be a tool to evaluate individual performance in particular circumstances?

Even if these alternatives could be reconciled and a settled meaning for duty of care developed, this does not solve the problem that social expectations of irrigation businesses have a moral basis that defies clear definition. Many debates involve the relative moral value of irrigation versus other values (notably environmental). For example, a trade-off between water for the Macquarie Marshes and water for cotton farmers at Narromine is not just about whether the irrigators have done the right thing. It is also about the 'rightness' of allowing access to water that could otherwise help to maintain the values of the Ramsar wetland.

The intractability of moral issues raises the question about whether a social licence to operate is about formal accountability, or is based on expectations of the virtue of those who own or manage irrigation business. Accountability is a minimum required level of behaviour, while virtue represents a desired standard of ethical performance (Bovins 1998). The boundary between these two types of behaviour is not clear in discussions about duty of care and management of natural resources.

An alternative view proposes duty of care as a focus for debate and learning, rather than setting functional boundaries. This envisages duty of care as one part of a cycle of learning about sustainable natural resource management (Adapted from Woodhill and Roling 1998). Active debate and grappling with the uncertainties of evolving social expectations is important to the development of better resource management.

Conceiving duty of care as part of a learning cycle is probably more realistic than other interpretations, but is likely to disappoint advocates as it fails to deliver certainty. Over time it can be expected that social learning will give the term more precise content, but meanwhile it seems unlikely to reduce uncertainty and address the immediate concern about ill-defined social expectations and act as a cornerstone of a social licence to irrigate. If a 'duty of care' model is

unlikely to resolve the social licence boundary problem for managers, will greater transparency be more effective?

Will Triple Bottom Line reporting prove responsibility?

Reporting should reflect those effects for which the business is prepared to be held accountable and committed to act upon. Without this, triple bottom line reporting is little more than public relations. Preparedness to act reflects the underlying values, socio-cultural norms and perceptions that exist about the organisation, its sense of its ethical obligations, its operations, and any other considerations that it believes define its boundaries of responsibility (Longstaff 2000; Muller and Siebenhuner 2007).

Preparedness to act is likely to arise through awareness of community well-being and through dialogue with the networks which link the business to society. Well-being is described as an overall satisfaction with life (Australian Bureau of Statistics 2004) and is recognised as a valuable concept in developing expectations of performance associated with natural resource management (Lockie, Lawrence et al. 2002). Critical evaluation of the social and environmental performance of irrigation businesses occurs through networks such as local communities, environmental stakeholders, or networks of competing water users. Networks are likely to be the 'place' where criticisms of irrigation enterprises acquire political power. Networks then are relevant for considering social responsibility and defence of the social licence as they can foster shared norms and support cooperation that leads to changes in wellbeing (Organisation for Economic Cooperation and Development 2001).

This suggests that boundaries of responsibility may be best refined through a process where irrigation businesses develop networks with their most relevant communities, through which they explore their specific contribution to wellbeing. Attention to the welfare concerns of relevant networks makes it more likely that specific issues, circumstances and power relations will be reflected in a tacit agreement about social responsibilities (Lockie, Lawrence et al. 2002). This would lead enterprises to report against specific contributions to welfare of specific networks, rather than more ill-defined generalities about corporate impact.

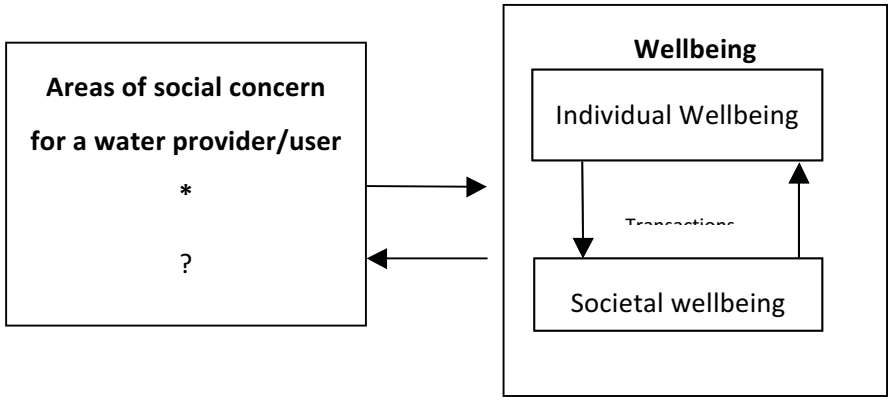

Figure 3 Framework for measuring wellbeing (Australian Bureau of Statistics 2001)

*Areas of social concern do not assume practical meaning without accountability and actionability by the enterprise.

Triple bottom line performance reports from irrigation water providers typically classify social licence issues under the headings of community service, customers, staff and governance (State Water 2005; Goulburn-Murray Water 2006; Murray Irrigation Limited 2006; Murrumbidgee Irrigation 2006; Southern Rural Water 2006; SunWater 2006). It could be assumed that these reflect which networks' welfare are matters upon which the enterprise is prepared to act. It could be argued that a politically more sophisticated approach to protection of the social licence would be less focused on the interests of networks already aligned to the water enterprise, and be more concerned with likely opponents to its continued social licence. Whilst this would inevitably be challenging, it would probably be more meaningful in terms of the fundamental purposes of triple bottom line reporting. The question of what welfare issues (of what networks) are most relevant to social accountability is one that could be fruitfully researched.

It would seem that a process of deciding 'which networks' and then 'what welfare issues' may assist the business in defining its voluntary social reporting strategies. However, merely doing so may not serve to clarify the boundaries of its social responsibility.

Some process for marrying self-defined views of responsibility, with improved sensitivity to accountability likely to be imposed by others who do not necessarily respect that self-definition, seems to be necessary.

A proposal to action social accountability

Rather than leave this problem hanging over the heads of managers we conclude this paper with a proposal for irrigation businesses to address social licence concerns. Figure 4 (below) suggests three steps to better identify social accountability. Once these accountabilities have been clarified, genuine

engagement with staff and stakeholders can help managers to deepen their understanding of social expectations, and assist in refining the boundaries of the business' accountability. It could also make triple bottom line more meaningful.

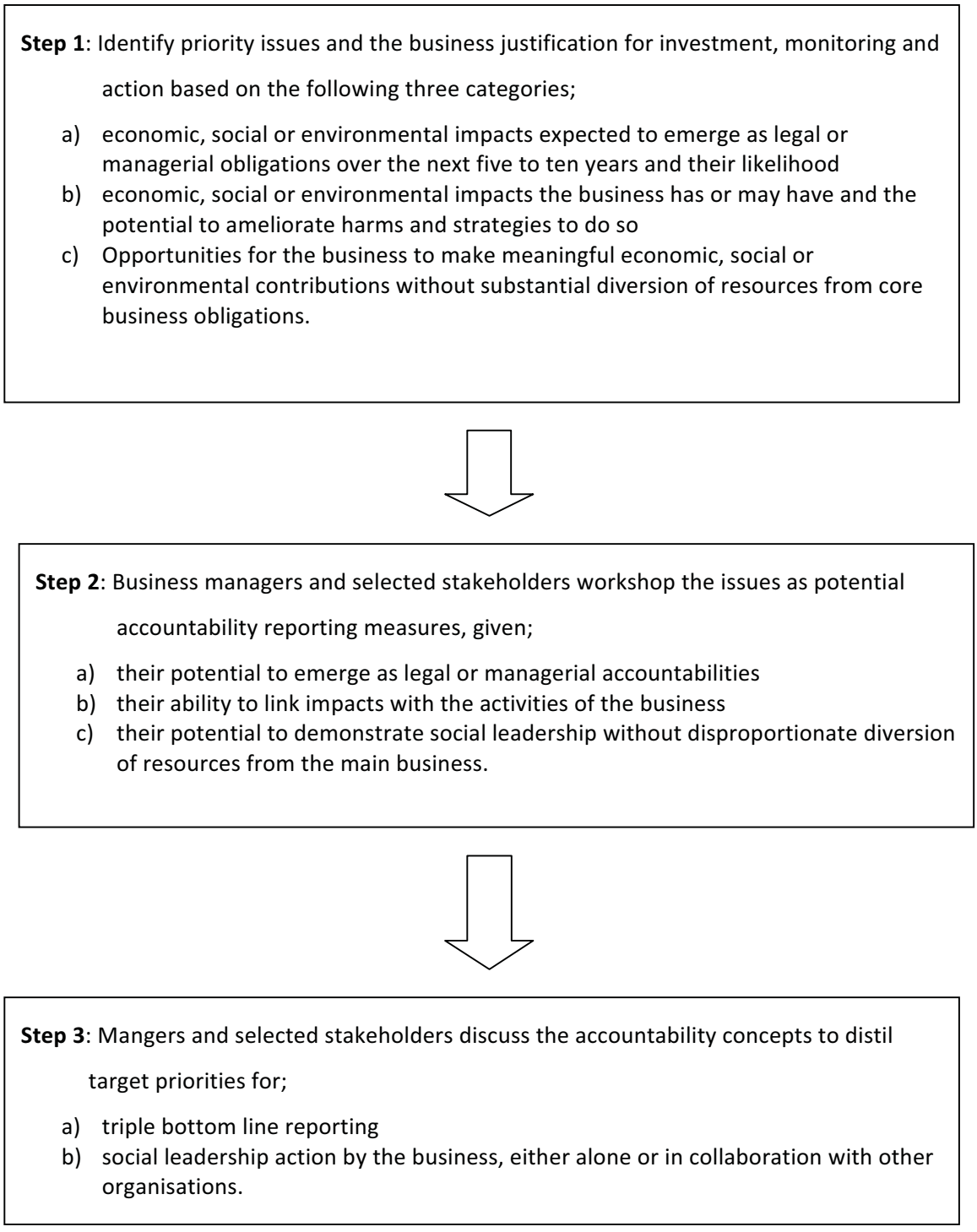

Figure 4 the suggested management steps to identify accountability

Once accountabilities have been identified, the business can examine the appropriate measures for reporting, and the internal processes required. This is an important practical step because reporting costs to the business arise largely from internal processes rather than external expectations.

The irrigation business will then be in a position to publically specify: its citizenship approach and the priorities for reporting and action, the issues and metrics to be used in reporting performance; and the internal business systems to be used to satisfy the accountability requirements. Such a statement of external accountabilities and leadership intentions can be circulated to owners and regulators of the irrigation business and selected stakeholder groups for review and feedback. This statement and its review process would form the basis for a formal citizenship strategy for the business, to be publically reflected in performance reporting. The strategy should be subject to regular management review, and remain a foundation for reporting performance.

Irrigation sector strategy and social accountability

Water will remain a contested resource. Political conflict over its best use will be a feature of irrigation. Those businesses that are best able to preserve the support of the community can be expected to be more competitive, particularly as water allocation processes and infrastructure provision for its delivery will remain substantially political. Defence of the social licence to irrigate is a matter of strategic and economic concern, and social accountability is of more than academic interest.

Duty of care and triple bottom line reporting can be beneficial if they can be advanced to a practically useful stage. However, the adoption of some aspects of community expectations into law or management practice will not eradicate disputes which prejudice the social licence to irrigate. Managers of irrigation businesses must expect that their use of water will remain contested as climate change, population increase and continuing changes in attitudes give rise to new social expectations and fundamental conflicts. These managers will have to re-define the boundaries of their responsibility. These boundaries will not be set by the law, but may be as powerful as the law in defining access to resources. We have suggested one possible process for tackling this difficult challenge.

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A1.2: The Political discourse of land stewardship, reframed as a statutory duty

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THE POLITICAL DISCOURSE OF LAND STEWARDSHIP, REFRAMED AS A STATUTORY DUTY

MARK SHEPHEARD AND PAUL MARTIN*

This chapter explores the tension between property rights that generate an expectation of minimal legal accountability, and political stakeholders' expectation of care in the exercise of those rights. This is a discourse about stewardship and the practical meaning of a statutory duty of care; a term reflecting sustainable development principles in international agreements but with significant practical implications when enacted into domestic law. The tension created by such competing expectations is reflected in administrative rules that seem to make stewardship a legal obligation. These new rules mask the competing meanings embodied in the language used in international environmental dialogue, but in embedding competing meanings of terms in the legal discourse they potentially sew the seeds of future conflicts. This is in part because the pursuit of expanded stewardship responsibility is occurring alongside the creation of ever-broader legally secure property rights to the environment. The tensions are given a public expression in the heated 'farmers' property right' movement, which (at the time of finalisation of this chapter) is becoming increasingly strident. Thus there are three parallel forms of discourse about stewardship for natural resources which interact: formalised political discourse about desired norms, spilling over from international to Parliamentary contexts; the inchoate legal discourse related particularly to the implementation of instruments; and the informal political discourse of political activism.

All three discourses share characteristics that would be readily identified by a student of Foucault. The symbolic meaning of the language is not shared, and contests about meaning are also contests over power. The form of the discourse is specific to the context and follows "rules of engagement" specific to that context for discourse. In this paper we will consider the interaction between the two formalised discourses that (in ways envisaged by Dryzek[257]) demonstrate competition. The competition we

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observe is complex. The different contexts and the resulting expectations of the participants in the discourse result in different basic assumptions, including assumptions about the specificity of meaning to be attached to the symbolic words. A contest between worldviews about humans and the environment, of the type identified by Dryzek, is evident in both discourses. An important distinction between the legal and the policy contexts is that the meaning of symbols that will emerge eventually through formal legal processes will determine which of the categories within Dryzek's taxonomy will emerge as dominant in legal practice. This is a power conflict over the specific meaning to be assigned to a particular set of linguistic symbols.

I THE TENSION BETWEEN PROPERTY RIGHT AND SOCIAL OBLIGATION

Sustainable development is a language of political discourse that aspires to marry environmental protection with economic exploitation. Different jurisdictions give substance to this language through economic incentives, administration and legislation.[258] In Australia these expectations are assumed into domestic law in various ways, one of which is a statutory environmental duty of care.[259] Whilst the connotations of sustainable development and a duty of care are readily accepted politically, when it comes to denoting particular behaviours with specific (economic) consequences the terminology may prove to be more slippery than one might expect.[260]

A new jurisprudence for the environment is emerging.[261] One core challenge is to reconcile increasing private ownership of rights to the environment with increasing expectations of public good stewardship. An effective institutional framework is needed to reconcile the minimal accountability expected by property interests and a caring stewardship of resources foreshadowed by international environmental discourse. Duties of care represent a step in this direction, but to make them effective will require great sophistication of reasoning applied by administrators and industry. It will be necessary to narrow the range of meanings that may be attached to the symbolic phrase, so that the legal system can perform its function of channelling and resolving conflict by reference to specific rules and repeatable processes.

The competing expectations that a statutory duty of care can mandate sustainable management and simultaneously reduce the high transaction costs, complexity and inflexibilities claimed of traditional regulation may not be reconcilable. The view that minimal accountability is all that is legally required

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257 John S Dryzek, *The Politics of the Earth: Environmental Discourses* (1997).

258 Philippe Sands, *Principles of International Environmental Law* (2nd ed, 2003) See page 266. See also World Commission on Environment and Development, *Our Common Future* (1987).

259 See Table 2 below for the list of statutes.

260 Maria. Lee, *EU Environmental Law: Challenges, Change and Decision-Making,* Modern Studies in European Law (2005) See page 25.

261 Paul Martin, 'The Changing Role of Law in the Pursuit of Sustainability' in Michael Jeffrey, Jeremy Firestone and Karen Bubna-Litic (eds), *Biodiversity Conservation, Law and Livelihoods: Bridging the North South Divide* (2008) 49.

within the sanctity of property rights, sits uncomfortably alongside the belief that a duty of care legally embeds a higher moral responsibility of care in the relationship between resource users and the environment.

The statutes containing a duty of care produce obligations that are largely implemented through administration rather than civil or criminal action. Whilst making environmental duty an administrative instrument (rather than a civil right) is intended to prevent the courts from being involved in attempting to resolve such irreconcilable meanings, this will not prevent political disappointments as the principle is applied. Based on analogous developments in administrative environmental laws it is expected that the courts will eventually have a fundamental a role in reconciling the tensions between the expectation that private property can only be attenuated by specific rules, and expectations that property is a form of public trust.

The chapter will highlight some practical challenges in society's attempts to translate ideals of stewardship into binding legal principles using a statutory duty of care. Concepts of sustainability and stewardship arise in the political arena, often translated first into international and domestic policy. These are subsequently implemented using mechanisms including funding, taxation and administrative arrangements. Ultimately the ideals of stewardship may be translated into legal principles and applied directly to holders of property rights through policing or civil action or by government agencies exercising administrative oversight of private actions. Administrative enforcement is the path that has been selected for the environmental duty of care as it has been with the application of the precautionary principle.

The translation from political principle into applied regulation requires the development of precise definitions and legal principles around words that conceal multiple and competing meanings. The term 'a duty of care, along with 'the precautionary principle' and 'sustainable development' have the value of assisting political consensus precisely because of their ambiguity. When their meaning must be defined for the purpose of adjusting individual property rights to exploit resources, the flexibility of meaning becomes a significant problem. This process from international politics to local law may in effect transfer unresolved political tensions into to legal arena, leaving it to the bureaucracy and eventually the courts to determine which world-view is reflected in the application of words that can be used to encompass the wide range of perspectives on man and his environment that Dryzek documents.

If and when litigation occurs for a statutory duty of care, it is likely that a long tradition of judicial application of a duty of care, which reflects minimal obligations of accountability, will inform the ultimate meaning of a farmers' statutory obligation. We suggest that this is more likely to involve restating the dominance of the exploitative paradigm of property (at least for this limited purpose) with

some modification to require limited foresight and care, rather than embracing of any of the 'greener' world-views that have informed the political discourse.

II THE RHETORIC OF DUTY, CARE AND ACCOUNTABILITY

Property owner responsibilities can be structured around accountability as a minimum required level of behaviour, or around care as a desired standard of ethical stewardship.[262] As discussed below, non-government organisation and international agency expectations about sustainable development favour stewardship as a standard. This creates a pressure for concepts of care to expand property owners' responsibilities to the broader community, and affected neighbours.[263]

Property owner legal responsibilities for management performance are constituted by accountability to comply with specific statutory obligations, coupled with accountability to neighbours not to infringe their exploitative rights.[264] The paradigm of property embeds a largely un-attenuated freedom to exploit, with constraints where Parliament makes clear this purpose or where exploitation may unjustifiably interfere with the interests of another property owner.[265] Its emphasis is on minimum accountability for environmental harm, with property rights paramount.[266] The common law imposes accountability that is significantly less onerous than the loosely defined public good responsibilities that are implied in stewardship standards of responsibility.[267]

A duty of care within the common law of negligence generates practical meaning to a broadly defined neighbourly duty through consideration of:[268]

(v) foreseeability of harm

(vi) consideration of the circumstances in which harm arises

(vii) the objective standard of care relevant to the circumstances, determined after the fact, and

(viii) consideration of common practice

A failure to exercise reasonable care in the particular circumstances may result in liability[269]. By a process of court decisions applying this reasoning society develops well-understood norms of

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262 Mark Bovins, *The Quest for Responsibility; Accountability and Citizenship in Complex Organisations* (1998).

263 Mark Stallworthy, *Sustainability, land use and environment; a legal analysis* (2002).

264 Murray Raff, 'Environmental obligations and the western liberal property concept' (1998) 22 *Melbourne University Law Review* 657.

265 Joseph Sax, 'Environmental Law Forty Years Later: Looking Back and Looking Ahead' in Michael Jeffery, Jeremy Firestone and Karen Bubna-Litic (eds), *Biodiversity, Conservation, Law and Livelihoods: Bridging the North-South Divide* (2008) 9.

266 John G Fleming, *The Law of Torts* (9th ed, 1998), see page 9.

267 Tucker LJ in *Latimer v AEC Ltd* [1953] AC 643.

268 John G Fleming, above n 10, 117. The approach is sometimes termed the 'Shirt calculus' since the leading Australian authority is *Wyong Shire Council v Shirt* (1980) 146 CLR 40. For a discussion of breach of duty see Ch 8 Francis Trindade, Peter Cane and Mark Lunney, *The Law of Torts in Australia* (2007); Jane Stapleton, 'Duty of Care Factors: a Selection from the Judicial Menus' in Peter Cane and Jane Stapleton (eds), *The Law of Obligations: Essays in Celebration of John Fleming* (1998).

behaviour. The normative nature of these accountabilities means that it is not necessary or expected that they will be fully specified, unlike some 'command and control' regulation.[270]

In the absence of other interpretative support, the long judicial experience with the application of a duty of care is likely to inform the meaning of a farmers' statutory duty of care. This is because the statutory versions provide little clarity about the practical meaning of responsibility in a stewardship context. Yet people have a right to know what the law is, what it allows and what it does not allow in a way that is pre stated rather than retrospective.[271] Freedom of action is an overriding interest that is preserved in courts applying a reasonable care approach.[272.] The accountabilities arising from the historical common law approach are more consistent with a property paradigm of freedom to exploit with minimal accountability, than with the more ethically aspirational concepts of stewardship based on care, as the courts conventionally do not seek to drive the development of community norms. The law is prosaic rather than imaginative in imposing accountabilities.

III COMPETING MEANINGS OF THE STEWARDSHIP METAPHOR

'Stewardship' is a component of the political dialogue about resource owner responsibilities. A steward is a person holding a position of responsibility, the guardian of a place.[273] The metaphorical appeal of the terminology is strong, as it redolent with a sense of ancestral values including its use in the (translated) Bible. Its fiduciary meanings have been picked up to advocate greater farmer responsibility for sustainable natural resource management.[274] Stewardship has been described as an approach that reconnects farming with good environmental practice,[275] recognising constraints on resource depletion as part of an obligation to future generations.[276] This is a response to the belief that modern agricultural production systems demonstrate little of the stewardship role traditionally associated with farming.[277] Instead industrial agriculture has emerged as a main cause of environmental decay across the landscape.[278]

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269 Mark Lunney and Ken Oliphant, *Tort Law Text and Materials* (2nd ed, 2003).

270 Tucker LJ in *Latimer v AEC Ltd* [1953] AC 643.

271 Doreen McBarnet and Christopher Whelan, 'The Elusive Spirit of the Law: Formalism and the Struggle for Legal Control' (1991) 54(6) *The Modern Law Review* 848, 857.

272 John G Fleming, above n 10.

273 Judy Pearsall and Bill Trumble (eds), *Oxford English Reference Dictionary* (2nd revised ed, 2001)

274 Richard Barnes, *Property Rights and Natural Resources* (2009); Anna Carr, *Grass Roots and Green Tape: Principles and Practices of Environmental Stewardship* (2002), see p.15.

275 Sir Don Curry, 'Farming & Food. A Sustainable Future.' (The Policy Commission on Farming and Food, 2002), see p.9.

276 United Kingdom, Royal Commission on Environmental Pollution, *Sustainable Use of Soil* (1996), see p.22.

277 D Baldock et al, *Growing Greener. Sustainable Agriculture in the UK* (1996)

278 Sir Don Curry, above n 19, 68.

Stewardship provides a conception of prudent or right behaviour with respect to avoiding environmental harm.[279] Prudence is about ends, how to make important choices using mix of foresight, morals and self understanding; in effect a demonstration of care.[280] For those wishing to see greater emphasis on conservation, the core duties of stewardship are to keep resources for posterity and to save resources from harm.[281] The intention of the use of the term is to make property rights subject to norms of environmental responsibility; in the same way as the use rights of a steward are constrained by the obligation to hold the resource in trust for others.[282]

The metaphor of the steward is also embraced by farmers, whose world-view is often counter to more 'imaginative' perspectives on the relationship between man and the natural world that is present in environmental advocacy. In political discourse owners whose views are sometimes clearly Lockean attach to the metaphor of a good steward their pride in how they have historically managed and used the land. Thereby they attach to stewardship a sense of moral obligation and justification in exploitative use.[283] This use of stewardship in the debates over their boundaries of responsibility is a bid for continued freedom to exploit. These uses of stewardship illustrate how political discourses about sustainability do allow for competing meanings to be encompassed in singular terms. Whilst useful as language for political discourse this flexibility of meaning of terms is likely to frustrate legal application of the duty of care. Courts will be forced to find a more technically precise designation, and thereby reduce the scope for uncertainty.

The underlying tension in these discourses is about defining the boundaries between an owner's private rights to exploit and the community's interest in conservation.[284] Secure property rights require the community as a whole to support an owner in defending their interest. This implies a social consensus about responsibility and freedom to exploit.[285] Where the community is dissatisfied with this bargain it can impose constraints through statutes, or it can apply force or sanctions to ensure that the collective interest is not ignored.[286] Whilst an owner's title is ostensibly clearly defined by law, at a

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279 Maria Lee, above n 4, 207.

280 Bernard E Jacob, 'Ancient Rhetoric, Modern Legal Thought, and Politics: A Review Essay on the Translation of Viehweg's "Topics and Law"' (1995) 89 *Northwestern University Law Review* 1622, see 1668.

281 Richard Barnes, above n 18, 156.

282 Ibid 161.

283 For an illustration of these competing views see Australian Conservation Foundation, 'Rights and Responsibilities in Land and Water Management' (2002); Richard Barnes, above n 18; Andrew Macintosh and Richard Denniss, 'Property Rights and the Environment: Should farmers have a right to compensation?' (The Australia Institute, 2004); Mick Keogh, 'Property rights and farming in Australia. Defining duty of care for farm land' (NSW Farmers Association, 2002).

284 Mark Stallworthy, above n 7, 78.

285 Paul Martin and Miriam Verbeek, 'Property Rights and Property Responsibility' in *Property: Rights and Responsibilities* (2002) 1.

286 Mark Stallworthy, above n 7, 79. See generally Sean Coyle and Karen Morrow, *Philosophical foundations of environmental law, property, rights and nature* (2004); Murray Raff, 'Toward an Ecologically Sustainable Property Concept' in Elizabeth Cooke (ed), *Modern Studies in Property Law* (2005).

societal level the rules are more variable, and negotiated over time. This duality in the nature of property translates into unresolved tensions about whether the rights of the landowner are only constrained by clearly specified legal accountability, or whether there are broader social responsibilities (reflected in the term 'care') that form part of owners' responsibilities that accompany their property right.

Implicit in this tension, and reflected in the constitutions of many Western democracies, is that the property right is for most purposes paramount. This is translated into a judicial expectation that exploitative interests will be protected other than where there is an unambiguous statement by the Parliament of its intent to overturn this interest, and where legislation is (from both a legal principle and an evidentiary perspective) specific about this intent.

IV THE PATTERNS OF LEGAL RESOLUTION

The failure to resolve the tensions between expectations of freedom to exploit and expectations of caring stewardship is the seed of unproductive and costly disputes. Two examples from NSW serve to illustrate this tension and the way in which it is resolved in the interest of the private right, steering the interpretation of concepts that come from an imagining of sustainability towards a prosaic and conservative reflection of world-views of property. These examples are the regulation of native vegetation conservation and implementation of a statutory precautionary principle (Table 1).

Table 1 Application problems from natural resources legislation

Statute	Application problem
Conservation and management of native vegetation in the *Native Vegetation Conservation Act* 1997 (NSW)	Statutory provisions that yielded an inability to successfully prosecute for clearing making the act difficult to enforce for the protection of native vegetation. After six years the act was replaced.
The precautionary principle for decision making in the *Protection of the Environment Administration Act* 1991 (NSW)	Twelve years of judicial interpretation in the New South Wales Land and Environment Court about what the principle demands of a decision making process in practice.

With native vegetation legislation, the NSW Parliament intended to provide a scientifically rigorous approach to achieve sustainable land management.[287] This administratively rational approach was

[287] New South Wales, *Parliamentary Debates*, Legislative Assembly, 19 November 1997, 2075 (Kim Yeadon, Minister for

intended to use science to draw the boundary between freedom to exploit and duty to the environment. The *Native Vegetation Conservation Act* 1997 (NSW) embedded the expectation that scientific data would allow precise categorisation of landscapes, and estimation of the ecological impacts of land use, to enable objective decisions about biodiversity protection.[288] No prosecutions under this legislation were successful in court, principally because of the inability to prove scientifically the breaches and their impacts.[289] In 2002, five years after the legislation was enacted, the Auditor-General found no strategic approach to vegetation conservation had been successfully established and that the regulator lacked comprehensive information about the status of vegetation to efficiently regulate for its conservation.[290] Whilst the data and frameworks were suitable for policy debate, when applied against the background of private rights to exploit, they were legally insufficient. The history of environmental law demonstrates that imaginative laws that do not take into account prosaic realities can create cost and complexity even for individuals who are not guilty of substantive harm doing.[291]

The statutory precautionary principle further illustrates the challenges of translating international discourses of environmental responsibility into meaningful local accountabilities.[292] Entering local law via Principle 15 of the Rio Declaration of 1992, twelve years of judicial interpretation has occurred in the New South Wales Land and Environment Court alone[293] about what the principle demands of a decision making process. It is informative that whilst the precautionary principle has been implemented only as a principle in administrative decisions, the impact on potential private interests has resulted in an extensive history of administrative litigation. This suggests that the ambition to avoid courtroom testing of such principles may be unrealistic, where the principle clashes with the exploitative interests of society.

Judicially the precautionary principle has been characterised as a political aspiration "with the potential for interminable forensic argument as a legal standard"[294] that has gradually been clothed by

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Land and Water Conservation). This is the second reading speech for the Native Vegetation Conservation Bill (NSW).

288 Ibid.

289 To address these deficiencies new native vegetation conservation was enacted by the NSW Parliament with the intent to provide clear objects to end clearing, standard definitions of what vegetation is protected, exemptions for routine agricultural management activity, and a consent process based on property planning, see New South Wales, *Parliamentary Debates*, Legislative Assembly, 12 November 2003 (Craig Knowles, Minister for Natural Resources).

290 Auditor-General of New South Wales, *Performance Audit Department of Land and Water Conservation, Regulating the Clearing of Native Vegetation* (2002).

291 National Farmers' Federation, 'Policy on Sustainable Production, Land and Native Vegetation.' (2004); Productivity Commission, 'Impacts of native vegetation and biodiversity regulations.' (2004); WWF, 'Native Vegetation Regulation: Financial impact and policy issues.' (2005); Auditor-General of New South Wales, *Performance Audit. Regulating the Clearing of Native Vegetation. Follow-up of 2002 Performance Audit* (2006).

292 The specific example is the use of the precautionary principle in s.6(2)(a) of the *Protection of the Environment Administration Act* 1991 (NSW).

293 There are multiple versions of the principle both within Australia and internationally, and this is an example limited to one version in one jurisdiction.

294 Talbot J. in *Nicholls v Director General National Parks and Wildlife Service* (1994) 84 LGERA 397.

the courts with a detailed description of what it means to apply the principle.[295] This represents rejection by the legal system of the sort of interpretative pluralism that is useful for political discourse, as counter productive in the legal and administrative setting. Sustainable development, also a key plank of the Rio Declaration, is recognised as an important management principle for natural resources.[296] To give this term workable meaning the court has had to find ways of specifying what this might mean in particular circumstances. In these examples, in trying to clothe the policy language of sustainability with legal content that is consistent with property and freedom the courts have moved from a broad "responsibility" discourse to a narrow "accountability" mechanism. The imaginative conceptualisation of the relationship between man and the earth is less useful than the prosaic when it comes to the application of the law. This outcome can be argued not as a rejection of the environment, but rather as a reinforcement of the human rights to security of their legal interests against the excesses of the state.

The jurisprudence of the environment indicated by these examples can be seen as subordinate to the jurisprudence of property. Ownership is intended to convey the freedom to exploit constrained firstly by specific rules to protect the interest of other owners and neighbours who may be harmed by exploitative acts deemed to be beyond the right of the owner; and by legal sanctions for specific acts where evidence of a suitable standard can be provided to the courts. Overlaid on this are administrative decisions, which do not override ownership interests unless clearly specified to do so which must be carried out in ways that fit with constraints on abuse of administrative power. The overall structure reflects the dominance of exploitative interest constrained only by specified accountabilities. Yet the international discourse seeks to reverse this understanding of the legal relationship between rights to exploit and duties to conserve.

V THE MERGER OF SELF-INTEREST AND SOCIAL INTEREST

Instead of relying on the moral commitment of resource users to environmental outcomes or to their neighbours, policy makers increasingly assume that care is a scarce resource. This is demonstrated by the seemingly inexorable shift from civil law to market instruments. Faith in the ability of citizens to defend their interest was first replaced by faith in regulation reliant on the control capacity of government. The expectation was that self-interest would be constrained by fear of legal sanction. Recently faith has been transferred to the market, with the idea that the self-interest of economic agents will lead them to act in ways that promote the common good. Once again the ghost of Locke is heard in the Parliament and the courtroom, even as his conceptualisation of the relationship between man and the world is considered to be archaic by environmental altruists.

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295 Preston CJ. in *Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133 (24 March 2006), see para.127 to 183.

296 See para.57 *Bentley v BGP Properties Pty Ltd* [2006] NSWLEC 34 (6 February 2006).

A demonstration of this is water policy. Over the long term, the legal model of responsibility has shifted in varying degrees in different jurisdictions from a regime of private (riparian) rights, to regulation and planning, and thence to market mechanisms that reward the pursuit of private good. Under riparian rights a downstream riparian owner has the right to receive water unaltered in flow or quality and the upstream user has an obligation to ensure that is the case.[297] In Australia and the USA reliance on an approximation of moral relationships was diminished by statute, creating reliance on administration to manage resource access and use. This shift from a focus on personal relationship to reliance on administrators was a first step, with administrators arguably representing the collective interest. In Australia the shift to tradeable extraction entitlement implies that the extent of moral duty is to be efficient, subject to specific legally defined accountabilities. This shift, from interpersonal relationships with obligations to neighbours, through to reliance on agencies and planning, and thence to amoral market transactions, is a recurrent theme in natural resource management.

However there is a counter-narrative to amorality in relations between people and natural resources. International interest in moral content in natural resource management is reflected in multilateral environmental instruments. For example, reversing natural resource loss is incorporated into one of the United Nations Millennium Development Goals about sustainable development.[298] The Earth Charter also contains commitments to respect and care for the community of life by securing earth's bounty and beauty for present and future generations.[299] This includes; respect earth and life in all its diversity, care for the community of life with understanding, compassion and love, build democratic societies that are just, participatory, sustainable and peaceful, and secure the earths' bounty and beauty for present and future generations.[300] This imaginative conceptualisation places a duty or ethic of care as a central guide to practice, encouraging farmers to adopt a sense "that they are part of a community of responsible neighbours, each guided by a similar vision of sustainable life, each knowing that ownership means duty, that duty means care, and that care, in the end, is our sole source of hope."[301] Responsible conduct promotes limits on farmers' actions from the inherent social and environmental obligations of ownership, where rights are reconceptualised based on stewardship and where reasonableness is equated to a prudent environmental enquiry.[302] This Earth Charter vision proposes an allocation of responsibility based on care.

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297 William Howarth, *Wisdom's Law of Watercourses* (5th ed, 1992).

298 United Nations Millennium Project, 'Investing in Development. A practical plan to achieve the Millennium Development Goals' (2005).

299 Earth Charter International, 'The Earth Charter. A Declaration of Fundamental Principles for Building a Just, Sustainable and Peaceful Society in the 21st Century' (2000).

300 Ibid.

301 Eric T Freyfogle, 'Ethics, Community and Private Land' (1996) 23 *Ecology Law Quarterly* 30 See page 649.

302 Murray Raff, above n 8, 692.

Other examples where an ethic of care is placed as central to stewardship include the Stockholm Declaration, Rio Declaration and Agenda 21, World Charter for Nature, World Soil Charter and World Soils policy, Convention to Combat Desertification, Convention on Biological Diversity, Ramsar Convention and the UN Framework Convention on Climate Change.

Thus, both local and international politics of the environment are now characterised by simultaneous calls for amoral market efficiency alongside calls for caring management. The strangeness of this coupling is largely un-noted in policy debate. However it does sit comfortably with the observations of discourse theory.

VI HOW DISCOURSES OF CARE TRANSLATE INTO ACTION

Mechanisms requiring care in the use of resources span from limited accountability within private property rights (regulation), through informal exercise of community power including the power to constrain or adjust property rights (social licence). [303] In socio-political contexts expectations are poorly specified and shift, often couched using expressions where what is connoted (for different interest groups) is more significant than what is denoted. The words used need only to be sufficient for the purpose of political debate, and allowing latitude for multiple meanings to co-exist can be advantageous. Examples include 'sustainability', 'sustainable development', 'social justice', 'the precautionary principle', 'stewardship' and 'duty of care'. The linguistic symbols are clothed with different meanings by different people in different contexts.

Sustainable development suggests obligations reflecting needs, limits, equity and systems management.[304] These obligations are intended to avoid harmful behaviour and promote a neighbourly ethos.[305] Such expectations can be translated into concepts of stewardship for the next generation or stewardship for the purpose of production of environmental goods for today's citizens such as biodiversity, clean water and cultural or aesthetic goods. Mechanisms to enforce expectations include: penalty structures applied through regulation or administration; economic incentive structures such as subsidies and fees for production of environmental goods or carrying out of environmental works, or for demonstration of good stewardship; and informal exercise of community power to remove or reduce the social licence of the farm sector to carry out their production activities relatively unhindered. These all involve the exercise of power triggered by interpretation.

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303 Social licence is a voluntary unwritten consent that a community attaches to resource use. It depends on satisfying social expectations, see Neil Gunningham, Robert A Kagan and Dorothy Thornton, 'Social Licence and Environmental Protection' (2002); Gary Lynch-Wood and David Williamson, 'The Social Licence as a Form of Regulation for Small and Medium Enterprises' (2007) 34(3) *Journal of Law and Society* 321.

304 Philippe Sands, above n 2.

305 Paul Martin and Miriam Verbeek, *Sustainability Strategy* (2006).

Regulation is developed within institutions that assume the paramount value of property rights. This results in a need to be specific about accountability. The distribution of government funds and the exercise of discretion in administration are also constrained by rules concerned with the integrity of the use of power. No such constraints exist for communities exercising political power, although; respect for law, private property and administrative integrity do channel and constrain the exercise of political power.

As this chapter argues, there is a trend to try to insert elements of care-focused discourse into the accountability-focused regulatory framework, to close the loop between legal accountability and the desire for caring stewardship. This is principally through administrative rules intended to translate the language of politics and environmental care into legal requirements. In order to achieve this, words with multiple meanings and connotations need to be refined to create clear accountabilities within the context of private rights.

The European Common Agricultural Policy (CAP)[306] uses good agricultural and environmental practice as a normative standard for environmentally friendly farming performance.[307] This is the baseline standard of accountability for farmers.[308] Land stewardship incentives encourage good farming practice beyond the good agricultural and environmental condition baseline.[309] Such aspirations are similar to those underpinning Australia's adoption of a statutory duty of care.[310] In England good agricultural and environmental practice (a minimum accountability standard) is implemented using the 'Single Payment System' while good farming practice (the caring performance standard) applies under a tiered 'Stewardship Scheme'. The potential confusion from this plurality of normative guides for farm management performance is illustrated using soil protection.

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306 *Council Regulation (EC) No 73/2009 of 19 January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers, amending Regulations (EC) No 1290/2005, (EC) No 247/2006, (EC) No 378/2007 and repealing Regulation (EC) No 1782/2003* [2009] OJ L30/16. For a general overview of the CAP see; European Commission Directorate-General for Agriculture and Rural Development, *The Common Agricultural Policy Explained*, KF-81-08-237-EN-C, <http://ec.europa.eu/agriculture/> at 7 April 2010.

307 Christopher Rodgers, 'Agenda 2000, land use, and the environment: Towards a theory of 'environmental' property rights?' in Jane Holder and Carolyn Harrison (eds), *Law and Geography. Current Legal Issues 2002* (2003) vol 5, 239; Rural Payments Agency and Department for Environment Food and Rural Affairs, 'The Guide to Cross Compliance in England' (PB 12904a, 2009).

308 Rural Payments Agency and Department for Environment Food and Rural Affairs, 'Single Payment Scheme Cross Compliance Guidance for Soil Management' (PB11162, 2006), see page 2,

309 Rural Development Service, 'Entry Level Stewardship Handbook Terms and Conditions and How to Apply' (PB10355, 2005).

310 Alex Gardner, 'The Duty of Care for Sustainable Land Management' (1998) 5(1) *The Australasian Journal of Natural Resources Law and Policy* 29; Standing Committee on Environment and Heritage, Parliament of the Commonwealth of Australia, House of Representatives, *Public Good Conservation: Our challenge for the 21st Century. Interim report of the inquiry into effects upon landholders and farmers of public good conservation measures imposed by Australian Governments* (2001); Industry Commission, 'A Full Repairing Lease. Inquiry into Ecologically Sustainable Land Management' (1998).

Both the stewardship aspiration and the minimal accountability approaches make reference to management guidance contained in government guidelines and/or codes of practice. For example, one document to guide implementation of good agricultural and environmental condition and good farming practice is a manual for the assessment and management of soil erosion.[311] This document supports assessment of erosion risk on the farm but it does not address the risks of cumulative soil and water movement off-farm and potential impacts on the ecological status of receiving waters.[312] Not connecting the farm with the catchment suggests that responsibility is focused upon impacts within the bounds of property (an accountability perspective) not upon broader community and environmental effects (a care perspective). Such issues are not restricted to England. The legal uncertainty created by multiple standards of farm performance is a concern across Europe due to its effect on trade.[313] For example, to what extent does stewardship, as part of a legally recognised food chain, incorporate the non-trade concerns of ethical production criteria and environmental protection?[314]

Competing concepts of stewardship, sustainability and property rights emerge against the background of public rhetoric seeking care of the environment. The dominant paradigm of private property is increasingly expected to be the instrument to protect ecological values. To believe that property rights provide a reliable guardian against over-exploitation of the environment requires a leap of faith.[315] The mainstream paradigm of natural resource management emphasises private exploitative right within a framework of limited and tightly defined environmental accountabilities.

The Australian development of the statutory duty of care intends to establish caring behaviour as the desired norm, guiding land stewards in an economic use that minimises environmental harm. This is unique in the process of moving from political to legal meanings of sustainability because the terminology "duty of care" comes from the common law, with a rich history of legal interpretation. In this common law setting the words have a particular meaning, in particular there is a logic of relationships between elements that is accepted by lawyers that dictates the true meaning of the duty. The accepted convention of the process of interpretation is central to the legal meaning of a duty of care, but this convention is not used outside of the legal profession. The layperson's understanding of the symbolic language is quite different to the practitioner's. This legal history focuses on the duty of

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311 Department for Environment Food and Rural Affairs, 'Controlling Soil Erosion: A Manual for the Assessment and Management of Agricultural Land at Risk of Water Erosion in Lowland England.' (PB 4093, 2005).

312 John. Boardman et al, 'Soil Erosion and Risk-assessment for On- and Off-farm Impacts: A Test Case Using the Midhurst Area, West Sussex, UK.' (2009) 90 *Journal of Environmental Management* 2578.

313 Rudy Gotzen and Roland Norer, 'Commission III Scientific and Practical Development of Agricultural Law in the EU, in countries and in the WTO' (Congress Conclusions presented at the XXV European Congress and Colloquium of Agricultural Law, Cambridge, 23-26 September 2009).

314 Leticia Bourges, 'L'éthique en agriculture. Les considérations non commerciales et les signes de qualité: les clés pour assurer la consécration d'un développement rural éthique' (Paper presented at the XXV European Congress and Colloquium of Agricultural Law, Cambridge, 23-26 September 2009).

315 Joseph Sax, above n 9.

care to one's legal 'neighbour' and has been applied to the fiduciary duty of trustees and guardians, and in the duty of care for workers. Aspects of this duty have been transformed into statutory duties such as the obligations to provide a safe system of work or for managers and directors to act honestly. How this approach to defining obligations will fit within the framework of sustainability is uncertain.

VII HISTORY AND LEGAL STEWARDSHIP

The appeal of the term "duty of care" lies in the history of its use in the common law (negligence, fiduciary duty), thence translated into legislation (occupational health and safety and corporations law); its ability to evolve and adjust to context; and its apparent widespread acceptance in setting norms of behaviour which adjust to changes in the capacity of duty-holders to internalise responsibility to others and the community's acceptance of different forms of harm. The courts clothe a duty of care with content on a case-by-case basis that is evolving, using a sophisticated (but deceptively simple-sounding) analytic logic rather than a set of rules.[316] This approach is appealing for precisely the reasons that will make it difficult to apply – it requires sophisticated judgements about subjective issues of great complexity. It is an unique genre of discourse. Those who do not share the conventions of legal interpretation that have evolved through history will find it difficult to understand how legal profession may apply the term.

The use of a statutory duty of care for land stewardship in Australia is intended to establish a renewed ethical approach to natural resource management.[317] We have argued that the competing expectations that a statutory duty of care will better encourage sustainable management and at the same time reduce the high transaction costs, complexity and inflexibilities claimed of traditional regulation may not be reconcilable in practice.[318] A conservative interpretation is more consistent with the historical traditions of the law than is a more imaginative outcome. This development, perhaps not accidentally, arises in Australia where market based instruments have been enthusiastically embraced, in the interest of sustainability and efficiency, that are scarce on requirements for care.

VIII THE POTENTIAL FOR A JUDICIAL DISCOURSE

Table 2 shows where the duty of care has been incorporated into land management statutes in Australian state jurisdictions. These reflect Parliamentary inquiry recommendations that draw on a

316 Julius Stone, *Legal System and Lawyers' Reasoning* (1968).

317 Alex Gardner, above n 54, the new ethic is referred to on page 63.

318 Standing Committee on Environment and Heritage, above n 54; Industry Commission, above n 54; Alex Gardner, above n 54; Paul Martin et al, 'Developing a Good Regulatory Practice Model for Environmental Regulations Impacting on Farmers' (2007); M C Watts, 'Getting on track? A discussion paper on Australia's progress towards ecologically sustainable management of our rural landscapes' (Australian Conservation Foundation, 2004); M Young, T Shi and J Crosthwaite, 'Duty of care: An instrument for increasing the effectiveness of catchment management.' (Department of Sustainability and Environment, 2003); Mick Keogh, above n 27.

common law duty of care.[319] However, legislatures have been keen to avoid civil action over a breach of an environmental duty of care, eschewing the traditional private role of a duty of care in relations between citizens, as it has been developed through the courts. The statutory versions of a duty of care instead focus on boundaries of responsibility between citizens and the state adjudicated through an administrative process. Administrative notices and prosecution for non-compliance are the means to enforce this type of a duty.[320]

Table 2 Statutory duties of care for the environment in Australia

Legislation	Source of the duty
Environmental Protection Act 1994 (Qld)	s.319 General Environmental Duty
Land Act 1994 (Qld)	s.199 Duty of Care Condition
Catchment and Land Protection Act 1994 (Vic)	s.20 General Duties of Land Owners
Environment Protection Act 1993 (Sth Aust)	s.25 General Environmental Duty
Natural Resources Management Act 2004 (Sth Aust)	s.9 General Statutory Duties and s.133 Specific Duty to a Watercourse
River Murray Act 2003 (Sth Aust)	s.23 General Duty of Care
Pastoral Land Management and Conservation Act 1989 (Sth Aust)	s.7 General Duty of Pastoral Lessees
Environmental Management and Pollution Control Act 1994 (Tas)	s.23A General Environmental Duty
Forest Practices Act 1985 (Tas)	s.31(1) Code of practice to provide reasonable protection to the environment

Generally the statutory versions require farmers to undertake all reasonable and practicable measures or exercise reasonable consideration or exhibit reasonable land management behaviour, to prevent or minimise environmental harm or harm to land. Advocates of this form of duty expect it to offer farmers a self-regulating way to acquit their responsibilities.[321]

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319 See recommendation 5, Standing Committee on Environment and Heritage, above n 54. See recommendations 8.1 and 8.2. of the Industry Commission, above n 54.

320 Alex Gardner, above n 54, 31 and 61.

321 Australian Conservation Foundation, above n 27; Australian Farm Institute, 'Statutory Theft' (2001); The Wentworth Group of Concerned Scientists, *A New Model for Landscape Conservation in New South Wales* (2003); M C Watts, above n 62; M Young, T Shi and J Crosthwaite, above n 62; Mick Keogh, above n 27.

The role of the courts in giving practical meaning to the duty of care is downplayed by the administrative enforcement approach. This usually involves issuing an order or notice for which non-compliance is an offence. Action by a third party may be authorised by further administrative action, and costs recovered or court orders issued as a final step in the general process.

The duty of care makes environmental care a rule of accountability by embedding this requirement within administrative frameworks under which agencies of government can make orders for private expenditure, and even terminate contractual leases. The bureaucracy, rather than the courts (through criminal action) or the citizen (through civil action), will be charged with determining the moral legitimacy of exploitative acts, and giving legal effect to the conscience of the community by taking actions that impose an economic penalty on the environmental wrong doer.

The economic consequences from such orders may be significant, including the termination of private leases over large land areas or costly remediation works at private expense. The incentive to seek judicial review of such administrative decisions seems substantial particularly as the principles themselves are legally nuanced.

The understandings that are shared between judges and advocates about the relationships that make up a duty of care are unique and specialised. This distinctiveness gives the discourse the character of a specific genre. The duty of care terminology in common law is short hand for elegant reasoning developed over centuries. This functions as a two-stage process for setting flexible standards of performance. First, contexts and relationships are examined to decide whether one person is under an obligation and has acted reasonably towards another to prevent certain potential harms. The boundary of responsibility for harm depends on whether the harms, harm causing practices or people involved are of a type that, for policy reasons, ought to be excluded from liability. Second are the behavioural norm aspects of a duty, which arise once the general obligation to take reasonable care is established. These define the practical actions needed to satisfy the duty. The more that common practice of an industry or profession is followed, the more likely that no breach of the duty will be found.

In its new sustainability application the principal use for a statutory duty of care is in setting boundaries of responsibility between citizens and the state, about how the citizen is entitled to treat the environment. There is no clarity about the reasoning process to be applied by the administrators.[322] We expect that in the absence of well-developed precedent the legal interpretation of the new meanings of duty of care is likely to reflect foundational principles from common law history, which is a shared basis for investing meaning in the terms. International law principles may perhaps be imported alongside the common law for determining reasonable care. The High Court has found that entering

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322 For example, see Queensland Farmers Federation, 'The Environmental Code of Practice for Agriculture' (1998), which is intended to clarify what is required for farmers to meet the general environmental duty of care in s.319 of the *Environmental Protection Act* 1994 (Qld).

into an international agreement raises a legitimate expectation that administrative decisions made by the government will be in accord with the provisions of the agreement.[323] An international agreement, ratified by Australia, may influence the court's interpretation of an ambiguous statute, but it is not likely to overturn judicial history.[324]

Administrative enforcement, rather than private litigation or policing, is intended to remove the spectre of litigation but as we have noted this may be opening the door for administrative appeals. Administrators do not have a shared interpretative history, not common frameworks for their discourse about duties. This suggests the potential for a great variety of approaches and outcomes. Administrative enforcement raises significant uncertainties about how a duty of care might be applied including:

(i.) The reasoning steps that will be applied both in the original decision and for any appeal;

(ii.) the type of evidence that may be required as a result;

(iii.) whether the enactment will be read to broaden or to narrow the type of obligations on the resource user; and

(iv.) the extent to which obligations for sustainable development within international agreements to which Australia is a party will be relevant.

The potential for complexities in applying the duty of care term to the environment is substantial. The duty of care in its' fiduciary and worker safety applications imposes a high standard of obligation upon the duty-holder, to take a highly precautionary approach to protecting the interests of those to whom they owe the duty. In its application in negligence however, the duty of care depends on nuanced evaluation by the court of what is foreseeable and reasonably preventable. The level of precaution is only that which is reasonable in the circumstance. The questions that this begs are: "what is the precautionary onus that must be imposed by an administrator upon the subject of an environmental duty of care?"; and then "what reasoning must be applied by the administrators to demonstrate that they have properly acquitted their obligation to properly apply the test of duty?" before they can act. This judicial discourse is unique, and materially different to the discourses of farmers and other landowners about the same subject matter.

Further difficulties arise because unlike the prior incarnations of duty of care, the environmental duty is protective of non-human interests. This is an imaginative development analogous to the responsibility of those holding market power not to exercise it so as to substantially harm that (artificial) creature termed competition in a market. History with trade practices law has demonstrated that moving to consider non-human interests poses particular difficulties for the judicial system. The challenges are illustrated by the early attempts of Australian courts to apply the well-understood

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323 *Minister of State for Immigration and Ethnic Affairs v Teoh* (1995) 183 CLR 273.

324 *Ibid.* See paragraph 26 of the judgement by Mason CJ and Deane J.

concept of "competition". In the first case to test this principle,[325] Joske J. adopted a definition of competition that was seen as unusually narrow given the common understanding in economic expert circles of the meaning of this term. The *Trade Practices Act* 1974 (Cth) was subsequently amended and a more detailed and specific definition of competition was inserted, which directed the courts to specific tests to define the newly created duty not to cause harm to competition. The difficulties arose notwithstanding a range of technical and general guidelines, including overseas cases that were considered by commentators to provide a clear meaning to the policy term. A similar type of process occurred with the precautionary principle, which shares a number of characteristics with a duty of care. In most such cases the pattern of the court seems to be to take a prosaic and conservative stance to the extension of legal responsibility, respecting the freedoms to exploit opportunities that are available to the citizen.

IX COMPETING INTERPRETATION IN THE SOCIAL GENRE

The indeterminacy of the accountability coupled with the likelihood of administrative appeal suggests that judicial interpretation will arise once the duty is applied in ways that impact on land users.[326] The indeterminacy also suggests that administrative implementation and judicial interpretation will be complex, and that more specific guidance for land users will be required. This type of dynamic has been evident with interpretation of the statutory precautionary principle by the courts.

There is a variety of social expectations about what a duty of care is and what it can do for stewardship of natural resources (Table 3).[327] Few of these reflect the uses of duty in negligence. Many of the interpretations are used in debate without the conflicts between them being highlighted, creating a false sense of coherence between competing interests in the advocacy of a farmers' duty of care. In using the term 'a duty of care', advocates may be expecting quite different outcomes from its application.

Table 3 Diverse expectations of the legal duty of care.

Interpretations of duty of care	
Is it a flexible process for determining responsibility in a range of situations?	Or is it specific rules of practice that can be clearly stated?

325 *Top Performance Motors Pty Ltd v. Ira Berk (Qld) Pty Ltd* (1975) 24 FLR 286.

326 Jane Stapleton, above n 12, see p.76 regarding the indeterminacy concern.

327 These twelve versions are distilled from literature and from twenty-eight interviews conducted with individuals from eight stakeholder groupings representing interests in stewardship of natural resources and the use of a duty of care. Groups included; farmers, funding providers, information providers, regional natural resource managers, environmental regulators, farming political lobbyists, conservation political lobbyists and legal practitioners.

Is it a method for handling disputes between individuals?	Or is it a method for determining compensation claims against the state for 'taking' of private resources?
Is its principal purpose to increase accountability for environmental and public good performance of private enterprise?	Or is it a means to safeguard resource use for private enterprise?
Does the term refer to a statutory duty of care, specified by Parliament?	Or does it mean a common law duty of care, developed by the judiciary?
Is it principally a tool used to frame political rhetoric?	Or is it a legally actionable concept with specific legal content
Is its purpose to define the collective duty of resource users generally across a generic range of circumstances?	Or is it intended to be a tool to evaluate individual performance in particular circumstances?

These different concepts reflect opposing hopes of interest groups, which include:

(i.) Strengthening the property right and compensation claims of farmers;
(ii.) Strengthening the public interest claim over farmers' management of natural resources;
(iii.) Creation of new civil or government rights to intervene in the management of primary production;
(iv.) Strengthening 'right to farm' claims;
(v.) Shifting of the costs of public good conservation from the private to the public purse; or
(vi.) Embedding of the costs of conservation as a cost of land tenure.

These views seem to span the variety of world-views characterised by Dryzek. Not all these expectations can be met. Further refinement through the Parliament or judicial review will take time, and may impose high costs.[328]

X GIVING MEANING TO THE LEGISLATED DISCOURSE

[328] B G Colby, 'Regulation, Imperfect Markets and Transaction Costs: The Elusive Quest for Efficiency in Water Allocation' in D.W. Bromley (ed), *The Handbook of Environmental Economics* (1995) ; Steven M Maser and Douglas D Heckathorn, 'Bargaining and the Sources of transaction Costs: The Case of Government Regulation' (1987) 3(1) *Journal of Law, Economics and Organisation* ; Robert Baldwin and Martin Cave, *Understanding Regulation: Theory, Strategy, and Practice* (1999) ; Andrew Dragun, 'Environmental Institutional Design: Can Property Rights Theory Help?' (Department of Economics, University of Queensland, 1999); Karen Palmer and Margaret Walls, 'Extended Product Responsibility: An Economic Assessment of Alternative Policies' (Resources for the Future, 1999); Kevin Guerin, 'Encouraging Quality Regulations. Theories and Tools' (New Zealand Treasury, 2002); Barak D Richman and Jeffrey T Macher, 'Transaction Cost Economics: An Assessment of Empirical research in the Social Sciences' (2006) 115 *Duke Law School.*

A statutory duty of care for environmental protection and stewardship of natural resources exists in four Australian jurisdictions. This reflects the more imaginative elements of the international discourse of environmental responsibility, but must be applied in a world where the dominant paradigm is the exploitative freedom of property owners constrained only by specific accountability. Although the connotations of care in stewardship and a duty of care are readily accepted politically in part because of their multiple meanings, when it comes to requiring performance with economic consequences for private interests the application of the terminology may prove slippery.

The potential for complexity when aspirations of moral action interact with the amorality of the market has been illustrated by the experience with implementation of the statutory precautionary principle and native vegetation conservation legislation. Courts, administrators and the legislature will have to overcome the problem of multiple hidden meanings that is common in political debate about matters where economics and ethics meet, such as with sustainable development. The economic impact of administrative decisions on property interests suggests the likelihood of court challenges to administrative attempts to bridge these distinct discourses. Inevitably courts must convert words intended to connote care into forms that impose well-specified legal accountability that respect of the freedoms of private ownership.

The common law can inform interpretation of the statutory duty of care in the absence of other definitive guidance, but this translation will be doctrinally complex. Practical complexities may emerge from this clash of paradigms, which could significantly impede the effectiveness of the duty of care to extend accountability.

(i.) Evidentiary, legal standing and doctrinal problems may result in significant transaction costs and uncertainty of outcomes. Where these issues are not an impediment, it may be more reliable to use more traditional environmental offences.

(ii.) Since only administrative bodies have legal standing and are likely to be sensitive to waste of public resource or public criticism, conservatism in using such innovative mechanisms is likely.

(iii.) For the early uses of the principle the risk of appeal on legal grounds (given the uncertainties of meaning, against the background of the common law history of the principle), would further dissuade its use.

These problems all suggest that the shift of discourse from the political to the legal genres carries its own unique complexities. This chapter has attempted to demonstrate that such problems are not idiosyncratic to the Australian land management legislation identified in Table 2 above. They reflect a clash of philosophies within a discourse that spans legal, social and moral dimensions. Unresolved tensions are masked by the use of words that conceal multiple meanings that allows apparent consensus on contentious issues. These in turn reflect world-views that mirror those highlighted by Dryzek, but also strongly reflect the continuing political and legal relevance of Lockean views of private property and man's relationship with the world. Eventually these tensions are delegated to bureaucracies to resolve, but in a context in which property interest can be constrained only by

unambiguous accountabilities is the legal norm. The form of discourse that is used in the law is unique, and requires levels of semantic precision that are avoidable (and perhaps counterproductive) in the political and social context.

Principles of moral responsibility will need to be far more clearly embedded as counters to the tradition of private exploitation if they are to meet the great expectations that they carry in international political discourse. Achieving this may require improved the regulation-making processes, so that the specifics of implementation of sustainability principles are better identified at the time the law is created. This may help to minimise the long periods between promulgation of ecological principles as law, and demonstration of their practical effect. Such processes will also need to ensure that the standards of responsibility expected of property owners are properly specified through Parliament, so that the legal profession can be sure of where along the spectrum of possible positions from conservative (property as paramount) to idealistic (strong stewardship ethic) the legislature intends to take society. This is necessary if the dominance of the exploitative paradigm of property is to be shifted by the incorporation of ethical concepts of sustainability.

Regulation making processes should also improve the capacity of the administration to make the types of decision that is required of them by such laws. As this paper has illustrated, what is expected of administrators is a very sophisticated bridging of discourses, for which few are likely to be adequately prepared. Ultimately, administrators and policy makers will need to accept that legal disputes before the courts over such ambiguities and conflicts is not a demonstration of inefficiency, but a valid process to generate community norms and consensus, in the absence of any other process to do so. The mechanism through which the law works to shape norms (and thereby minimise future conflict) is conflict channelled through the legal system. It is false efficiency to bypass this process when the issues are as truly fundamental as those embedded (but hidden) within the simple expression ‘a duty of care’ for the environment.

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Rhetoric of duty, care and accountability	3-4
Competing meanings of stewardship	4-5
Merger of self interest and social interest	7-9
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MARK SHEPHEARD· AND PROFESSOR PAUL MARTIN**[329]

The common law concept of a duty of care is being extended into agriculture in some jurisdictions. However, the expression 'duty of care' hides a diversity of competing connotations. This article explains the context within which this environmental duty of care has evolved and outlines some conflicts the principle is intended to resolve and competing expectations this elicits. Statutory versions of the duty of care from natural resources and environment protection legislation are discussed, along with a consideration of the principle's operation in tort to set bounds to legal responsibilities and norms of behaviour. The article concludes that like other attempts to import useful policy concepts into legal relationships, false starts are inevitable before the promise of a duty of care approach becomes a reality.

I INTRODUCTION

Duty of care is a legal term with a long history in the common law, notably within the tort of negligence. It has proven to be functionally useful in applying community norms of responsibility to assist in flexibly resolving complex disputes between neighbours. Environmental regulation of farming is criticised for being inefficient, cumbersome and out of tune with community norms.[330] A duty of care has therefore been suggested as a way of helping to define what reasonable behaviour is

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329 We are grateful for the valuable advice of Associate Professor Mark Lunney from the School of Law, University of New England.

330 Paul Martin et al, *Developing a Good Regulatory Practice Model for Environmental Regulations Impacting on Farmers* (Australian Farm Institute, 2007)

for a farmer, allowing both accountability and flexibility in response to particular situations.[331] This has led to policy proposals that a duty of care should be incorporated into natural resource management legislation[332] which have been subsequently enacted in several states. It is, however, difficult to clarify what a duty of care means in practical terms for farmers, because of the absence of well-developed community norms about responsibility to the environment.[333] Duty proponents, like the rest of the community, do not have a shared understanding about the content of a duty of care nor about the type of outcomes it is intended to deliver in practice.[334] We discuss the range of competing interpretations later in this article.

The value of the duty of care as a legally enforceable social construct is demonstrated by its application in civil liability, and in the general statutory duties of company directors.[335] In both instances this success has been the culmination of a long period of common law development. A statutory duty of care for natural resource management in farming does not enjoy a long history of refinement in the common law. The duty of care in common law has developed as a sophisticated process rather than as a code, primarily used for resolving disputes between citizens for damage to private interests. In its new sustainability application the principal use for a statutory duty of care is in setting boundaries of responsibility between citizens and the State, and while there are some indications of expected content there is no clarity about the reasoning process to be applied. In the absence of well-developed precedent, the legal interpretation of the new meanings of duty of care is likely to require reference to foundational principles from the common law.[336]

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331 Industry Commission, *A Full Repairing Lease. Inquiry into Ecologically Sustainable Land Management* (1998). Graham R Marshall, 'Economics of Cost Sharing for Agri-Environmental Conservation' (Paper presented at the 42nd Annual Conference of the Australian Agricultural and Resource Economics Society, 1998). Standing Committee on Agriculture and Resource Management, House of Representatives, *A discussion paper on principles for shared investment to achieve sustainable natural resource management practices* (1998). Australian and New Zealand Environment and Conservation Council, *National Framework for the Management and Monitoring of Australia's Native Vegetation* (Australian Government Department of Environment and Heritage, 2000). House of Representatives Standing Committee on Environment and Heritage, *Coordinating Catchment Management. Report of the inquiry into catchment management.* G Bates, *A Duty of Care for the Protection of Biodiversity on Land* (Productivity Commission 2001). M Young, T Shi and J Crosthwaite, *Duty of care: An instrument for increasing the effectiveness of catchment management* (Department of Sustainability and Environment 2003). Steve Hatfield Dodds, *The catchment care principle: a practical approach to achieving equity, ecosystem integrity and sustainable resource use* (CSIRO 2004). Phil Hone and Iain Fraser, *Extending the Duty of Care: Resource Management and Liability* (SWP 2004/06, Deakin University 2004).

332 Industry Commission, *A Full Repairing Lease. Inquiry into Ecologically Sustainable Land Management* (1998). House of Representatives Standing Committee on Environment and Heritage, *Public Good Conservation: Our challenge for the 21st Century. Interim report of the inquiry into effects upon landholders and farmers of public good conservation measures imposed by Australian Governments* A Gardner, 'The Duty of Care for Sustainable Land Management' (1998) 5(1) *The Australasian Journal of Natural Resources Law and Policy.* Queensland Government, *Delbessie Agreement: State Rural Leasehold Land Strategy* (December 2007). G Bates, above n 3.

333 Department of Sustainability and Environment (Victoria), *Land and Biodiversity at a Time of Climate Change Green Paper* (Government of Victoria, Australia, 2008) See p 61 on community expectations and the responsibilities of land managers.

334 This paper draws upon detailed evaluation of the various legislation, reports and studied cited, and 28 interviews with key farming, legal, government and environmental experts across the eastern part of Australia that were conducted between November and September 2008. Interviews took between 40 and 90 minutes.

335 For statutory duties of company directors see *Corporations Act 2001* (Cth). Sections 180 to 184 deal with general duties These are; the duty to act with care and diligence, to act in good faith and for a proper purpose, not to improperly use position and not to improperly use information.

336 The challenges of incorporating broad policy principles into legislation which impacts upon the free exercise of private property rights are well illustrated by the early attempts of Australian courts to apply

This article reviews issues concerned with boundaries of responsibility for natural resource management by farmers, where such a duty of care might be tested. We consider initially the variety of expectations and interpretations of a duty of care from the policy arena, which have led to its adoption into law. We then consider how the duty of care has been enacted as law in some jurisdictions. Based on this, we consider how these intentions might be tested in the courts, and the implications of the courts likely reliance on common law to develop a new meaning of duty in the pursuit of sustainability.

This highlights some potential obstacles to the practical implementation of a duty of care as the legal basis for sustainable natural resource management by farmers. It is hoped that such a review will provide an impetus to develop a more refined understanding of what a duty of care might mean in practice and thereby assist with its efficient application to control harms as well as supporting freedom to farm where the community expectation of a duty of care is met.[337]

II COMPETING EXPECTATIONS AND MEANINGS

The unique role of the duty of care in law is to provide a mechanism to give legal effect to unstated expectations about how an individual ought to act, where their action might impact on others. It defines a limit to the freedom of the individual that is based on community norms. It does so by applying a careful process of logic to define what the citizen ought to have done, after the fact. From this citizens can infer their own code of behaviour for future actions.

This implies some level of consensus that can be identified by a court about the boundaries of responsibility between the individual and broader community. In the civil and corporate uses of duty of care it would seem that there is an understanding that harm to another can lead to personal liability, and about what actions might be considered reasonable. The consensus has evolved partly as a result of the liability potential created by the legal duty, and the relationship between consensus and a legally enforceable duty is circular. It is not clear that there is such a consensus in the community about what harm to the environment is actionable based on a duty of care. The greatest social value from introducing a legal duty of care for the environment may not be in its capacity to resolve disputes today, but in its potential to drive the emergence of such a consensus over time through litigated

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the well-understood concept of 'competition'. In the first case to test this principle in court, *Top Performance Motors Pty Ltd v Ira Berk (Qld) Pty Ltd* (1975) 24 FLR 286, Joske J adopted a definition of competition that was seen as unusually narrow given the common understanding in economic expert circles of the meaning of this term. The *Trade Practices Act 1974* (Cth) was subsequently amended and a more detailed and specific definition of competition was inserted, which directed the courts to specific tests to define the newly created duty not to cause harm to competition. The difficulties arose notwithstanding a plethora of technical and general guidelines, including overseas cases, that were considered by commentators to provide a clear meaning to the policy term. A similar type of process occurred with the precautionary principle, which shares a number of characteristics with duty of care.

337 Daniel H Kim, 'From Individual to Shared Mental Models' (1994) 5(3) *The Systems Thinker;* Aalders, Marius, 'Drivers and Drawbacks: Regulation and Environmental Risk Management Systems' (2002) 10 *London School of Economics and Political Science;* Sue Kilpatrick et al, *Effective farmer groups for defining best practices for sustainable agriculture* (Research and Learning in Regional Australia, University of Tasmania & Department of Primary Industries, Water and Environment, Tasmania, 2003); Michele Marra, David J Pannell and Amir Abadi Ghadim, *The Economics of Risk, Uncertainty and Learning in the Adoption of New Agricultural Technologies: Where Are We on the Learning Curve?* (SEA Working Paper 01/10/2003), James Meadowcroft et al, 'Deliberative Democracy' in *Environmental Governance Reconsidered. Challenges, Choices, and Opportunities* (2004) 183; Peter M Senge and Danah Zohar, 'Emerging Theories about Deep Collective Learning' (Paper presented at the 22nd International Conference of the System Dynamics Society, Oxford, England, July 25-29 2004).

disputes.[338] However, this is a different line of argument from those that have been used to date to support environmental duties of care.

Expectations of reasonable natural resource management by farmers may come from formal or informal sources. Formal expectations are documented in domestic laws and administrative instruments, which may reflect international agreements and treaties. Examples of formal instruments with expectations about farmers' natural resource management are: the *Native Vegetation Act 2003* (NSW), *Property Vegetation Plans* (NSW) and the *RAMSAR Convention*.[339]

Social expectations are defined by both formal and informal means, and the expectations may not necessarily be consistent.[340] They can be expectations of virtuous behaviour (achievement of which deserves to be rewarded, perhaps by improved access to resources), or they can represent expectations of minimal accountability (non-achievement of which may justify punishment, perhaps by denial of access). Accountability reflects a minimum required level of behaviour, and virtue is a desirable standard of ethical performance.[341] This prompts the question whether a legal duty of care is intended to enforce accountability or results from a desire to reward virtue. Both conceptualisations are present in advocacy of a farmer's legal duty of care for the environment.

To illustrate, in irrigation farming competing informal expectations can be seen in community debates about: the volume and timing of water allocation, impacts of irrigation on the environment and the security of access to water by farmers and water for the environment. Such expectations reflect evolving social concerns about sustainability and the complex links that exist between water in its various uses, and community wellbeing.[342] These informal expectations go beyond formal accountability. It is in clarifying this region between what is stated as mandatory under statute, and what is expected of farmers by the community but unstated, that the concept of duty of care is anticipated to be most useful. However as expectations are not homogenous, and span the range from virtue to accountability, it is difficult to identify where these boundaries lie today.

It is relatively easy for everyone to agree that some boundaries should be in place, reflecting a distinction between behaviour that is 'accountable' and behaviour that is 'virtuous'. Moving from the abstract to the specific requires clear principles for doing so and to date these are not in evidence.

III DEBATE SURROUNDING BOUNDARIES OF RESPONSIBILITY AND FARMING

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338 For analysis of the social function of law in the harnessing of conflict for the purposes of norm formation and social cohesion see Niklas Luhmann, *Social Systems* (1984).

339 The *Ramsar Convention on Wetlands of International Importance especially as Waterfowl habitat*, done at Ramsar, Iran on 2 February 1971. The English text of the convention is set out in Australian Treaty Series 1975 No. 48. The convention is adopted into Australian law by the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

340 M Bovins, *The Quest for Responsibility. Accountability and Citizenship in Complex Organisations* (1998). To bear responsibility and to take action on it happens 'in the realisation that you will at some point have to answer for your action or inaction; whether to a formal institution, such as a tribunal or commission of inquiry; to an informal, but no less concrete, forum such as your circle of friends, your parents of your children; or to a more metaphysical type of forum such as God or human kind' see page 28. These expectations create a boundary of responsibility for performance that may not always be clearly defined.

341 Bovins, above n 12.

342 A Cashman and L Lewis, 'Topping up or watering down? Sustainable development in the privatised UK water industry' (2007) 16 *Business Strategy and the Environment* 12.

There are typically three areas of dispute around natural resource management by farmers: the rights and responsibilities of secure access to natural resources, the appropriate principles and standards for regulating agriculture, and the apportionment of cost and benefit between farmers and society. These three areas provide some illustrations of the challenges.

A Conflict about Responsibilities

Rights and responsibilities are inseparable components of property.[343] A holder of legal property rights to beneficial use and enjoyment of land is bounded by their responsibilities to neighbouring landholders (and through regulation to the broader community).[344] Australian society is increasingly concerned about farmers' natural resource management, reflected in media coverage of land degradation, water use issues, drought, and food production.[345] There is uncertainty about what duties a farmer has (or ought to have), reflecting both legal property rights and community perceptions of moral duties.[346] Political positions in the property rights and environmental responsibility debates can be characterised as supporting either un-attenuated freedom of use or greater restriction on use of resources. Non-attenuation is generally the position of farming interest groups, who see duty of care as providing greater freedom from government regulatory action that constrains farming. This position reflects a view that provided a farmer is satisfying a narrowly defined responsibility to the environment he or she ought to be free to operate unhindered and ought to be compensated if his or her operation is otherwise interfered with in the public interest. This narrow accountability approach is represented by groups such as the Australian Farm Institute, New South Wales Farmers Association and the National Farmers Federation.[347]

Greater attenuation of rights to access natural resources, based on expectations of virtue, underpins the advocacy of a legal duty of care by conservation groups, who see duty of care as a complement to regulation. Conservation interest groups argue that landholder responsibilities have been poorly defined.[348] These stakeholders often believe that farmers also have an obligation to go beyond compliance with regulation in their land management responsibility. In practice, conservation interests reflect a belief that responsibility encompasses 'the management of off-farm impacts such as salinity, soil erosion, pollution, and regional biodiversity decline' in addition to responsibility for impacts on

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343 R W G Bryant, *Land: Private Property and Public Control,* Environment Series (1973); H Demsetz, 'Towards a Theory of Property Rights' (1967) 57 *American Economic Review* 347; Charles K. Rowley and Charles Rowley, *Property Rights and the Limits of Democracy* (1993); John Brewer and Susan Staves, *Early Modern Conceptions of Property* (1995); Heritage House of Representatives Standing Committee on Environment, above n 4; Hone and Fraser, above n 3; Murray Raff, 'Toward an Ecologically Sustainable Property Concept' in Elizabeth Cooke (ed), *Modern Studies in Property Law* (2005).

344 Raff, above n 15. See para 2.44 in Heritage House of Representatives Standing Committee on Environment and, above n 4.

345 M Keogh, *Success requires innovation - on and off the farm* (2005).

346 Heritage House of Representatives Standing Committee on Environment and Heritage, above n 4.

347 National Farmers Federation (NFF), *Policy on Sustainable Production, Land and Native Vegetation* (2004); Jack A Sinden, *Who Pays To Protect Native Vegetation? - Costs To Farmers In Moree Plains Shire, New South Wales* (University of New England, 2002); NFF, *Community Attitudes to Farmers and Resource Security* (2003); Bryan Pape, 'Taking Farmers Property Rights Seriously and Just Compensation On Their Taking' (Paper presented at The Fourth Annual Global Conference, Environmental Taxation Issues, Experience and Potential, 2003); Andrew Macintosh and Richard Denniss, *Property Rights and the Environment - Should farmers have a right to compensation?* (The Australia Institute, 2004).

348 Australian Conservation Foundation, *Rights and Responsibilities in Land and Water Management* (2002).

the farm.[349] This version of a duty of care presupposes that many public interests which farmers believe ought to be funded by the public should be satisfied without compensation. This position is represented in the duty of care advocacy by groups such as the Australian Conservation Foundation, World Wildlife Fund, and the Inland Rivers Network.[350]

A lack of clarity and flexibility can inhibit innovative practice.[351] Duty of care has been promoted as a way to stimulate innovation by providing protection to farmers from detailed prescriptive regulations that limit land use options.[352] This potential to stimulate innovation in a way that helps meet public expectations has been highlighted,[353] suggesting that a legal duty may assist farmers to align their operations with regional natural resource management plans by using industry codes, best management practices and environmental management systems.

Whether replacing legislation that has the benefit of parliamentary oversight with codes, standards and systems that are not the subject of this form of scrutiny will ultimately result in greater simplicity and clarity is at this stage untested. One possibility is that the battle over requirements will simply move from Parliament into political backrooms, as competing environmental and farmer political interests struggle to become controllers of the interpretative guidelines and codes. Another is that these issues will be litigated through other avenues, notably administrative law, contract disputes or through enforcement processes.

B Debate about Principles and Standards for Sustainable Agriculture

Sustainability is primarily about the management of behaviour. Regulation is one tool of behaviour change.[354] Arguably a duty of care allows greater latitude for performance to be self-managed than traditional regulation because it allows greater freedom of action.[355] The potential to manage flexibly in response to local conditions is a valid argument to support duty of care[356] given the diversity of farming and environmental situations in Australia. However putting detailed meat on the broad bones of this policy objective is likely to be difficult. Three possible approaches are discussed below.

Land management policy principles have been suggested as the way to convert broad aspirations into actionable legal duties (see Table 1). While laudable, it is difficult to see how very broad principles will result in the clarity of the responsibility of farmers that is sought by all along the farmer/conservationist spectrum of opinions.

Farming systems research can provide more detailed management guidelines; these include: 'critical success factors for multi-purpose farming systems' (see Box 1),[357] 'principles for rural land

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349 Ibid.

350 Warwick Moss, *Why The Property Rights Debate Is Holding Back Reforms- A Case For A Focus On Structural Adjustment* (WWF, 2002), The Wentworth Group of Concerned Scientists, *A New Model for Landscape Conservation in New South Wales* (2003) WWF, *Native Vegetation Regulation: Financial impact and policy issues* (WWF, 2005), Australian Conservation Foundation, above n 20.

351 Bates, above n 3.

352 Australian Farm Institute, *Statutory Theft* (2001).

353 Bates, above n 3; M Young, T Shi and J Crosthwaite, *Duty of care: An instrument for increasing the effectiveness of catchment management* (Department of Sustainability and Environment, 2003).

354 Evidence to Standing Committee on Natural Resource Management, NSW Legislative Assembly, Sydney, 21 February 2006, (Professor Paul Martin); House of Representatives Standing Committee on Environment and Heritage, above n 4.

355 John G Fleming, *The Law of Torts* (9th ed, 1998). See p 9.

356 Gardner, above n 4. See particularly p 30 and p 61.

357 Neil Southorn, 'Challenges and opportunities for multi-purpose agriculture in Australian farming systems' (Paper presented at the AgroEnviron, University of Udine, Italy, 2004).

management,'[358] 'fundamental requirements for sustainable farming systems',[359] and the principles for ecologically sustainable farming systems in Australia.[360] These management principles may provide greater practical guidance, but they too are both general and contestable. It seems unlikely that any will conclusively satisfy the competing expectations of a practical meaning for a farmers' duty of care, though they may form useful components in future debates.

Table 1: Policy principles for farmers' duty of care from government inquiry documents

Principles for land management, natural resources and environmental protection[361]	**Principles of public good conservation**[362]
(vi) Land managers' duty of care for the environment established by statute, with associated rights and obligations. (vii) Identify and manage the risks of causing harm to the environment. (viii) Inform those directly at risk of foreseeable personal or financial harm. (ix) Inform the regulatory agency of the risk of foreseeable harm to the environment. (x) Consult with those at risk of foreseeable harm.	(vii) Landholders' rights in respect of land use. (viii) Landholders' duty of care to manage land in ecologically sustainable manner, (ix) Policy focus on outcomes and context-specificity. (x) Repairing past damage a shared responsibility. (xi) All programmes must be based on latest and best scientific data

A third alternative (beyond broad policy statements and farm-systems principles) is to rely upon science for specific guidance about actions to be taken at a farm level. By way of illustration, the approach in NSW is one where science-based environmental standards underpin regulation of farming practice.[363] This regulatory framework follows the recommendations made by the Wentworth Group of Concerned Scientists.[364] These standards address water quality, salinity, biodiversity, and soil

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358 S McIntyre, 'The way forward, from principles to practice' in S McIntyre, JG McIvor and KM Heard (eds), *Managing and conserving grassy woodlands* (2002)

359 John B Passioura, 'Can we bring about a perennially peopled and productive countryside?' (1999) 45 *Agroforestry Systems.*

360 MC Watts, 'Getting on track? A discussion paper on Australia's progress towards ecologically sustainable management of our rural landscapes' (Australian Conservation Foundation, 2004).

361 Industry Commission, *A Full Repairing Lease. Inquiry into Ecologically Sustainable Land Management* (1998).

362 House of Representatives Standing Committee on Environment and Heritage, above n 4.

363 There are three interrelated statutes that establish this science based framework for sustainable land management. These are the *Catchment Management Authorities Act 2003* (NSW), *Natural Resources Commission Act 2003* (NSW), and *Native Vegetation Act 2003* (NSW). These three need to be considered together for this purpose as they integrate to establish state wide standards and targets, establish statutory catchment plans and linking those to on ground performance via property vegetation planning.

364 The Wentworth Group of Concerned Scientists, *A New Model for Landscape Conservation in New South Wales* (2003).

conservation. Under this model, regulatory property management plans become a form of contract between farmer and the State, and establish the boundaries of responsibility for performance and funding. They are expected to provide investment security, management flexibility, and financial support opportunity for land managers.[365]

Such standards are more detailed than traditional regulations. The implementation of these detailed scientific standards has shown itself to demand a great deal of data and time. It has involved complexity for farmers and government and has reduced reliance on the farmers' judgement in the light of local conditions and operating needs.[366] These unintended costs are arguably due to an insufficiency of data and analytic processes, resulting in frustration among farmers as they are required to seek approvals for normal farming activity while processes are developed and data evaluated.[367] It would be hard to claim that harnessing science in this way has reduced the expectations gap between the farmer and environmentalist.

Box 1: A 'critical success' management approach to sustainable farming[368]

(x)	Know natural resource condition and limitations and the linkage of these to business success
(xi)	Natural resources are viewed and valued as business assets that can depreciate
(xii)	Inputs are matched to production potential
(xiii)	High input production is planned for environmentally stable and resilient sites with the appropriate protection measures in place
(xiv)	Active participation in conservation as part of the business plan
(xv)	Seek environmental accreditation and partnerships for development of environmental services
(xvi)	Environmental management is integrated into farm decision making and planning
(xvii)	Support and participate in education
(xviii)	Willingness to achieve change in organisational culture

Developing the practical meaning of a duty of care at a farm level is likely to involve a lengthy process of testing through administration, prosecutions or civil action. Science based standards of performance may eventually provide a robust link between principles and practice but this will be a lengthy and data hungry process. The mere creation of a statutory duty of care will not solve the fundamental problems that derive from a lack of consensus in society, and the limited capacity of science to resolve farming issues at an enterprise level. The law may reflect such tensions but it may be too much to expect that a legal formulation will efficiently resolve them.

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365 Ibid. See p 9 about Property Management Plans.

366 Government mandated legislation related to catchment management and its administration has the effect of crushing local initiative; see Anna Carr, *Grass Roots and Green Tape. Principles and Practices of Environmental Stewardship* (2002) 10. Uncertainty surrounding what a person may or may not do under public good conservation regulation reduces the confidence of landholders to invest in new forms of production and innovative technology (see p 66, House of Representatives Standing committee on Environment and Heritage, above n 4). There is a disconnect between government desire to sustain natural capital and rural social realities due to the economic constraints on farmers and the mixed policy signals that on one hand expose farmers to volatile international markets, while also demanding increasingly complex environmental protection measures See Matthew Tonts, 'Government Policy and Rural Sustainability' in Chris Cocklin and Jacqui Dibden (eds), *Sustainability and Change in Rural Australia* (2005). Much of the science that relates to such environmental protection remains uncertain at the local level. See p 72 of Paul Martin et al, *Developing a Good Regulatory Practice Model for Environmental Regulations Impacting on Farmers* (Australian Farm Institute, 2007).

367 Martin et al, ibid.

368 Neil Southorn, 'Challenges and opportunities for multi-purpose agriculture in Australian farming systems' (Paper presented at the AgroEnviron, University of Udine, Italy, 2004).

C Conflict over Cost Apportionment

There is conflict over who should pay for public good conservation on private land. The costs of conservation include (for example) foregone production from setting aside land and water for the purpose of protecting or rehabilitating the environment. Farming interests argue that other than where the farmer is the harm-doer, imposed public good costs should be funded from the public purse.[369]

Conservation interests suggest applying the 'polluter pays' principle as part of the duty of care.[370] This viewpoint can include acceptance that land managers could be paid incentives for generating social value through environmental stewardship and production of public goods, while those generating social costs should be subject to penalty.[371] However, 'polluter pays' leaves two issues unresolved. The first is that many types of environmental harm are intrinsic to normal farming practices, particularly irrigation farming. These require the maintenance of land in an artificial state, the redirection of water and the application of other inputs, and the control of pest species (which may be native). The second is that society, through government, expects farmers to actively protect the environment by foregoing normal uses of their private property, which farmers would argue forces them to unreasonably bear the cost of the public good.[372] For example, the Australian and New Zealand Environment and Conservation Council proposed that a farmers' private responsibility for native vegetation management 'could reasonably be expected to include protection of endangered species and/or ecosystems, protection of vegetation on land at risk of land degradation, protection of riparian vegetation, protection of vegetation on lands of low agricultural capability and protection of vegetation on acid sulphate soils'.[373] Farmers dispute that such expectations reflect their obligations to society.

Consensus on a conceptual framework that distinguishes between 'polluter pays' and 'public benefit' within a farmers' duty of care does not reflect a consensus about what this means in practice. It is for such reasons that the duty of care is unlikely to be an efficient policy instrument for the public good provision of ecosystem services by farmers'.[374] This Productivity Commission evaluation limits the value of a duty to 'where actions by individual landholders have a direct, observable impact that is well understood by them and where there is broad acceptance of the level of responsibility implied by the duty'.[375] The cost-allocation challenge requires a decision about who is to pay in the contested space between a narrow polluter pays definition of duty and a more expansive public stewardship responsibility. An accountability concept of duty of care would align with the farmer interest, and a virtue requirement would better suit conservationists. Saying that a duty of care applies does not per se resolve this conflict of expectations.

III THE MULTIPLE MEANINGS OF A DUTY OF CARE

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369 Australian Farm Institute, *Statutory Theft* (2001). Evidence to Standing Committee on Natural Resource Management, NSW Legislative Assembly, Sydney, 21 February 2006 (Professor Paul Martin).

370 ACF, above n 20.

371 Watts, above n 32. ACF, ibid.

372 Evidence to Standing Committee on Environment and Heritage, Inquiry into Public Good Conservation, House of Representatives, Canberra, September 2000 (Wendy Craik). Evidence to Standing Committee on Environment and Heritage, Inquiry into Public Good Conservation, House of Representatives, Sydney, November 2000 (Mick Keogh). ACF, ibid. NFF, above n 19.

373 Australian and New Zealand Environment and Conservation Council, *National Framework for the Management and Monitoring of Australia's Native Vegetation* (Australian Government Department of Environment and Heritage, 2000)

374 Productivity Commission, *Impacts of native vegetation and biodiversity regulations* (29, 2004).

375 Productivity Commission, ibid. See page LVIII.

Even among those who consider a statutory duty of care to be desirable, there are many interpretations about what the duty of care is and what it can do. Twelve broad possibilities for what people mean when they talk of a duty of care can be distilled (see Table 2),[376] few of which reflect uses of duty in negligence, which we will discuss later. Many of the interpretations in table two are used in debate without the conflicts between them being highlighted, creating a false sense of coherence between competing interests in the advocacy of a farmers' duty of care. In using the term 'a duty of care', advocates may be expecting quite different outcomes from its specific application.

Table 2: Possibilities for a duty of care and natural resource management by farmers

Potential interpretations of duty of care	
Is it a flexible process for determining responsibility in a range of situations?	Or is it specific rules of practice that can be clearly stated?
Is it a method for handling disputes between individuals?	Or is it a method for determining compensation claims against the state for 'taking' of private resources?
Is its principal purpose to increase accountability for environmental and public good performance of private enterprise?	Or is it a means to safeguard resource use for private enterprise?
Does the term refer to a statutory duty of care, specified by Parliament?	Or does it mean a common law duty of care, developed by the judiciary?
Is it principally a tool used to frame political rhetoric?	Or is it a legally actionable concept with specific legal content
Is its purpose to define the collective duty of resource users generally across a generic range of circumstances?	Or is it intended to be a tool to evaluate individual performance in particular circumstances?

These different concepts reflect opposing hopes of interest groups in their advocacy of the duty of care, which include:

(i) Strengthening the property right and compensation claims of farmers;
(ii) Strengthening the public interest claim over farmers' management of natural resources;
(iii) Creation of new civil or government rights to intervene in the management of primary production;
(iv) Strengthening 'right to farm' claims;
(v) Shifting of the costs of public good conservation from the private to the public purse; or
(vi) Embedding of the costs of conservation as a cost of land tenure.

Not all these expectations can be met. The potential for conflict and uncertainty remains high. Further refinement through the Parliament or judicial review will take time, and may impose high transaction costs.[377] Native vegetation regulation demonstrates that on-the-ground implementation of politically

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376 These 12 versions are distilled from the literature cited, and from the 28 interviews conducted.

377 Steven M Maser and Douglas D Heckathorn, 'Bargaining and the Sources of Transaction Costs: The Case of Government Regulation' (1987) 3(1) *Journal of Law, Economics and Organisation* 69; BG Colby, 'Regulation, Imperfect Markets and Transaction Costs: The Elusive Quest for Efficiency in Water Allocation' in DW Bromley (ed), *The Handbook of Environmental Economics* (1995); Robert Baldwin and Martin Cave, *Understanding Regulation: Theory, Strategy, and Practice* (1999); Andrew

negotiated solutions to conservation conflicts can impose operating complexity and lead to loss for farmers, even for individuals who are not guilty of substantive harm-doing.[378]

A Statutory Versions of Duty of Care

Table 3 shows where the duty of care has been incorporated into land management statute in Australia. These enactments are consistent with Parliamentary inquiry recommendations that draw on a common law duty of care without a detailed examination of its tort law function and meaning.[379] In particular, legislatures have been keen to avoid civil action over a breach of an environmental duty of care, eschewing the traditional private use of a duty of care in relations between citizens, developed and applied through the courts. The statutory versions of a duty of care instead focus on boundaries of responsibility between citizens and the state adjudicated through an administrative process. This is intended to place a duty of care as the centrepiece of a renewed ethical approach to natural resource management (a virtue conceptualisation).[380] Administrative notices and prosecution for non-compliance are the means to enforce this type of a duty.[381] These administrative implementation processes are reviewed in the next section.

The legislation identified in Table 3 demonstrates two ways of expressing the duty of care. The duty itself may be brief with the details being imported by reference to some non-statutory code, or alternately details may be expressed in the legislation itself. One implication of these alternatives is the extent to which the details of the law will be determined under parliamentary supervision, or by administrative decisions, or by judicial review. We shall return to this question.

An example of the brief statutory form is the general environmental duty in Queensland. This requires all reasonable and practical measures to minimise or prevent environmental harm.[382] A breach of this duty does not give rise to civil action but involves a regulatory compliance process.[383] The Act provides a short list of relevant factors to consider in working out what the duty means,[384] and refers to an industry code for detail.[385] A code has been prepared by the Queensland Farmers Federation to

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Dragun, 'Environmental Institutional Design: Can Property Rights Theory Help?' (Discussion Paper 251, Department of Economics, University of Queensland, 1999) Karen Palmer and Margaret Walls, *Extended Product Responsibility: An Economic Assessment of Alternative Policies* (Resources for the Future, 1999); Kevin Guerin, *Encouraging Quality Regulations, Theories and Tools* (26; New Zealand Treasury Working Paper 02/24, New Zealand Treasury, 2002), Martin et al, above n 2; Barak D Richman and Jeffrey T Macher, 'Transaction Cost Economics: An Assessment of Empirical Research in the Social Sciences' (Duke Law School, 2006).

378 Denys Slee and Associates, *'Remnant Native Vegetation, Perceptions and Policies: A Review of Legislation and Incentive Programs'* (2/98, Environment Australia: Biodiversity Group, 1998); Wentworth Group, above n 22; NSW Department of Infrastructure Planning and Natural Resources, *Draft Native Vegetation Regulation 2004. Regulatory Impact Statement* (Department of Infrastructure Planning and Natural Resources 2004); NFF, above n 19. Productivity Commission, *Impacts of native vegetation and biodiversity regulations* (29, 2004); WWF, *Native Vegetation Regulation: Financial impact and policy issues* (WWF, 2005); Auditor-General of New South Wales, *Performance Audit. Regulating the Clearing of Native Vegetation. Follow-up of 2002 Performance Audit* (The Audit Office of New South Wales, 2006); Alastair Davidson et al, *Native Vegetation: Public Conservation on Private Land, Cost of Foregone Rangelands Development in Southern and Western Queensland* (ABARE 2006); Martin et al, above n 2.

379 House of Representatives Standing Committee on Environment and Heritage, above n 4. See recommendation 5. Industry Commission, *A Full Repairing Lease. Inquiry into Ecologically Sustainable Land Management* (1998) See recommendations 8.1 and 8.2.

380 Gardner, above n 4. The new ethic is referred to on p 63.

381 Ibid.

382 *Environmental Protection Act 1994* (Qld) (*EP Act*). See s 319(1).

383 *EP Act.* See s 24(3).

384 *EP Act.* See s 319(2)

385 *EP Act.* See s 436(3).

provide more detailed interpretation centred on six 'expected environmental outcomes'.[386] This code has not yet been tested by judicial review.

Table 3: Statutory duties of care for the environment in Australia

Legislation	Source of the duty
Environmental Protection Act 1994 (Qld)	Section 319 general environmental duty
Land Act 1994 (Qld)	Section 199 duty of care condition
Catchment and Land Protection Act 1994 (Vic)	Section 20 general duties of land owners
Environment Protection Act 1993 (SA)	Section 25 general environmental duty
Natural Resources Management Act 2004 (SA)	Section 9 general statutory duties; s 133 specific duty to a watercourse
River Murray Act 2003 (SA)	Section 23 general duty of care
Pastoral Land Management and Conservation Act 1989 (SA)	Section 7 general duty of pastoral lessees
Environmental Management and Pollution Control Act 1994 (Tas)	Section 23 general environmental duty
Forest Practices Act 1985 (Tas)	Section 31(1) code of practice to provide reasonable protection to the environment

An illustrative example of the brief form of a duty of care is the *Land Act 1994* (Qld) (*L Act*) duty of care for the land as a lease, licence or permit condition for lessees of Crown land.[387] This legislation provides a general list of reasonable considerations for agricultural, grazing or pastoral managers.[388] Under the *L Act* a leaseholder who complies with a land management agreement is said to be satisfying his or her duty of care.[389] A brief expression of the duty also exists in Victoria where legislation provides a general statement about reasonable land management behaviour for land managers.[390] Failure to comply with this landholder duty in is not an offence but may attract a land management notice.[391] Lessees of pastoral lease land in South Australia are also subject to a brief specification of their duty of care.[392] The detailed meaning of this for land protection and management is referred to in a land management plan to be prepared by the lessee. Implying duty of care into land use agreements with the Crown gives rise to the potential that the content of this legal duty will be contested judicially in contract termination disputes.

386 Queensland Farmers Federation, *The Environmental Code of Practice for Agriculture* (1998).

387 *Land Act 1994* (Qld) (*L Act*). See s 199(1) for the duty of care, with the list of reasonable factors at s 199(2).

388 *L Act.* See s 199(2).

389 Queensland Government, *Delbessie Agreement: State Rural Leasehold Land Strategy* (December 2007).

390 *Catchment and Land Protection Act 1994* (Vic). See s 20

391 Ibid. See s 37.

392 *Pastoral Land Management and Conservation Act 1989* (SA) See s 7.

In Tasmania, statute imposes a general environmental duty on all citizens to prevent or minimise environmental harm or environmental nuisance.[393] Following an approved code of practice is accepted as compliance with the general environmental duty.[394] The *Forest Practices Act 1985* (Tas) creates a code of practice to provide for reasonable protection of the environment.[395] The Code establishes a landowner's duty of care for the conservation of natural and cultural values, including measures detailed in the code as necessary to protect soil and water values and the reservation of other significant natural and cultural values.[396] In all these instances the non-statutory code provides the interpretative substance of the duty, and as a result may be eventually tested politically or in court.

The alternative approach is to provide greater detail within the statutory instrument. Detailed expression of a duty is used in South Australia.[397] In determining what is reasonable the act lists eight factors to be considered along with the 24 points that make up the objects of the Act.[398] This provides greater legislative completeness, but necessarily uses generic words about reasonable behaviour. A breach of this duty does not make a person liable for civil or criminal action.[399] A general environmental duty also exists in South Australia to take all reasonable and practical measures to minimise or prevent environmental harm.[400] The measures required are listed briefly, but must also be considered in a way that is consistent with the complex objectives of the Act.[401] A breach of this duty does not give rise to civil liability.[402] South Australians are also under a general duty of care to take all reasonable measures to prevent or minimise any harm to the Murray River.[403] What this means is outlined in the act but once again this must be read along with the objectives of the act.[404] A breach of this duty does not give rise to civil liability.

Whether the duty is given brief or detailed treatment in the legislation the fundamental purpose is the same. Duty of care moves responsibility beyond what is written down, and into the sphere of unstated and often contested social expectations. Perhaps this is why the common law has evolved in the way it has, as a sophisticated reasoning process more so than a rule book. It is in the move from reliance on legal instruments to social judgements where the potential for greater use of self-regulation lies.[405] By taking an administrative pathway and excluding civil action, the legislators have sought to exclude one of the mechanisms for forming social norms. That is through civil disputes between citizens resolved in the courts. By reducing the opportunity for disputes to be adjudicated by the courts, the potency of

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393 *Environmental Management and Pollution Control Act 1994* (Tas) (*EMPC Act*). See s23A(1) and (2).

394 Ibid. See s23 (4).

395 *Forest Practices Act 1985* (Tas) See s31(1). It is uncertain whether the *Forest Practices Code* is an approved code under the regulations for the purposes of the *EMPC Act*.

396 Forest Practices Board, *Forest Practices Code* (2000) 52.

397 *Natural Resources Management Act 2004* (SA) (*NRM Act*). See s 9.

398 Ibid. See s 9(2) and s 7

399 Ibid. See s 9(4).

400 *Environment Protection Act 1993* (SA). See s 25.

401 Ibid. Section 25(2) provides the measures required. These must also be read with regard to the objectives of the act which must be furthered by those undertaking administration of the Act (see s 10(2)).

402 *Environment Protection Act 1993* (SA) s 25(4).

403 *River Murray Act 2003* (SA). See s 23.

404 Ibid. Subsections 23(2) and (3) outline the meaning of the duty, but s 8 specifically requires that all administration, operation and application of the act must be consistent with and further the objectives of the Act.

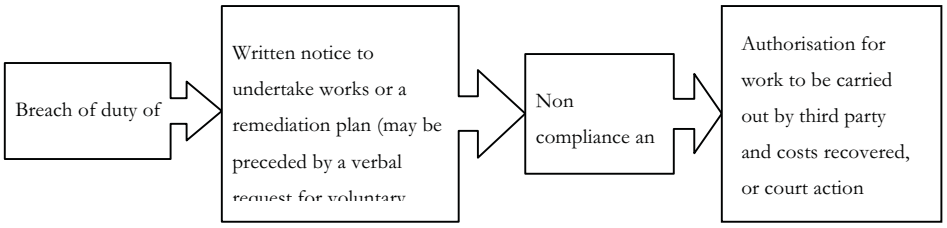
405 For example, see Queensland, *Parliamentary Debates*, Legislative Assembly, 9 September 1994, 9535-9538 (M J Robson, Minister for Environment and Heritage), particularly p 9537 where the Minister announces the duty of care as the essence of self regulation. Also see *Forest Practices Act 1985* (Tas). See sch 7 for the objective of the forest practices system to achieve sustainable management that is as far as possible self-funding with an emphasis on self regulation.

the duty of care as a mechanism for generating virtuous social norms for land management may be reduced.[406]

1 Administrative Implementation of the Duty

The preferred legislative approach to implementation of the duty of care is through administrative process. This usually involves issuing an order or notice for which non compliance is an offence. A third party may be authorised by further administrative action, then costs recovered or court orders issued as a final step in the general process (see Figure 1).

Figure 1: A generic compliance process for a statutory duty of care



This model (implemented in various ways in different states) broadly follows the enforcement strategy recommended by Gardner.[407] A key factor is enforcement by a local body (such as a catchment authority or natural resource management board) with the relevant knowledge and standards about natural resource management and environmental protection usually embodied in a catchment or regional plan. Different states have taken slightly different approaches. However in many instances the consequences of administrative process can be an order which involves additional costs, possible prosecution for non compliance, or loss of a leasehold interest.

By way of illustration, causing environmental harm is unlawful in Queensland under the *Environmental Protection Act 1994* but it is accepted that a defendant complied with the general duty if it is proven that an approved code of practice was followed.[408] For farming, this means compliance with the *Environmental Code of Practice*.[409] A breach of the Crown land lessee's duty of care in Queensland may result in the loss of access and use rights to the land, though failure to comply with a land management agreement only attracts a remedial action notice rather than loss of access and use.[410]

A land management notice issued under the *Catchment and Land Protection Act 1994* in Victoria may make prohibitions with respect to land use or management or specify actions to be taken. Failure to comply with the notice is an offence under s 41 of the Act. [411]

In South Australia, failure to resolve a breach of the duty under the *Natural Resource Management Act 2004* through negotiation and voluntary action may result in the issue of a notice to prepare an action plan to address the breach.[412] Failure to comply with a notice is an offence.[413] A breach of the duty

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406 For an examination of the positive value of legal disputes as a mechanism for norm formation, see Niklas Luhmann, *Social Systems* (1984).

407 Gardner, above n 4.

408 *Environmental Protection Act 1994* (Qld). See s 423.

409 Queensland Farmers Federation, *Environmental Code of Practice for Agriculture* (1998).

410 *Land Act 1994* (Qld) See s 234(b).

411 *Catchment and Land Protection Act 1994* (Vic).

412 *NRM Act.* See s 122.

413 *NRM Act* s 123(12).

may also be remedied through a protection or reparation order or authorisation.[414] Failure to comply with an order or authorisation triggers further regulatory action and may be the subject of a court order for non compliance.[415] Compliance with the duty of care under the *River Murray Act 2003* may be enforced by a protection or reparation order or reparation authorisation.[416] Failure to comply with these regulatory enforcement actions is an offence. Breach of the pastoral lessee's duty in South Australia is enforced by way of a notice to prepare a property plan addressing the degradation issues.[417] Failure to comply with the notice may result in a plan being prepared by the pastoral board.[418] Failure to prepare or implement a property plan is a breach of the conditions of a pastoral lease.[419] The general environmental duty in South Australia is enforced through an environmental protection order, clean up order or authorisation.[420] Failure to comply with these is an offence and may result in orders being issued by the court.[421]

In Tasmania, the code of practice and its duty (made under the *Forest Practices Act 1985*) is enforced initially by a request for voluntary action. Failure to undertake the requested action triggers a regulatory compliance process commencing with a notice. Failure to comply with a notice is an offence.[422] A third party may then be authorised to carry out the works required by the notice and the cost of that can be recovered from the offending landholder.[423] We contend that this approach and the similar administrative enforcement actions outlined above offer the potential for litigation under administrative law, seeking review of administrative decisions about compliance; and in civil proceedings for recovery of farmers' compliance costs, contesting lease contract terminations, or challenging a non-statutory code used to interpret the meaning of a duty of care.

2 An Opportunity for Judicial Review

We anticipate that courts will be called upon to interpret the practical meaning of a statutory duty of care. This is because of the economic implications of its application and the range of possible interpretations of its meaning in practice. For example, whilst the general environmental duty in Queensland is implemented administratively, we anticipate that the legal validity of administrative interpretation and reliance on industry codes of practice will be contested. This seems particularly likely if breach of a statutory duty of care is used to terminate a lease agreement over Crown land. It also seems plausible to foresee a farmer seeking recovery of compliance costs from administrative enforcement when orders are issued requiring certain actions be undertaken. Such possibilities are for illustration. It is not our intention here to deal with the many ways through which administrative enforcement of a statutory duty of care might be judicially tested. Rather, we will illustrate the potential for an administratively applied legal duty of care to the environment to generate judicial intervention by reference to the precautionary principle. As with a duty of care, the legislative intent was to take a policy term with hidden competing meanings, and convert it into a statutory instrument for administrative application. As is likely with a duty of care, the consequence of this was to adjust

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414 *NRM Act.* See s 193 for protection orders, s 195 for reparation orders, and s 197 for reparation authorisations.

415 *NRM Act.* See s 201 for court orders

416 *River Murray Act 2003* (SA). See s 24 for protection orders, s 26 for reparation orders and s 28 for reparation authorisations.

417 *Pastoral Land Management and Conservation Act 1989* (SA) (*PLMC Act*). See s 41(1).

418 Ibid. See s 41(5)

419 Ibid. s 41(10). The cancellation of a lease for breach of conditions occurs under s 37.

420 *Environment Protection Act 1993* (SA). See ss 93 and 94 for protection orders, s 99 for clean up orders, and s 100 for clean-up authorisations

421 Ibid. See s 104 for civil remedies

422 Ibid. A notice is issued under s 41(2) and non-compliance with the notice is an offence under s 41(5).

423 *NRM Act.* Authorisations are issued under s 41(6) and costs may be recovered under s 41(7).

private economic interests to the public environmental good.

Seven of the statutes shown in table three contain objects to achieve or promote ecologically sustainable development or sustainable management.[424] Ecologically sustainable development reflects the intent to meet present needs without compromising the ability of future generations to meet their needs.[425] It is a central element of decision making about natural resources,[426] with detailed meaning interpreted by reference to a range of principles. The precautionary principle, inter-generational equity, conservation of biological diversity and ecological integrity and improved valuation, pricing and incentive mechanisms exist in statutory form.[427] Further principles of sustainable use, intra-generational equity and the integration of economic, environmental and social considerations in decision-making processes have all been subject to judicial review.[428]

Case law interpreting ecologically sustainable development and its principles has focused primarily on judicial review of planning decisions where broad policy pronouncements have undergone detailed interpretation and refinement.[429] Notwithstanding the apparent impediment of the *Wednesbury* decision,[430] Talbot J in *Nicholls v Director General of National Parks and Wildlife* (1994) proposed a wide scope for review of administrative implementation of sustainability principles on the basis that 'the statement of the precautionary principle, while it may be framed appropriately for the purpose of a political aspiration, its implementation as a legal standard could have the potential to create interminable forensic argument'.[431] This has occurred over the years since, culminating with Preston CJ providing a detailed explanation and the procedure for application of the precautionary principle in *Telstra v Hornsby Shire Council*.[432] Throughout that time, judicial reinterpretations of the precautionary principle have been applied to the granting of emissions permits,[433] property development approvals,[434] fisheries management,[435] and criminal liability for pollution,[436] among others.[437] It is our contention that the statutory duty of care may be similarly refined.

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424 See s 3 *Environmental Protection Act 1994* (Qld), s 4 *Land Act 1994* (Qld), s 10(1)(a) *Environment Protection Act 1993* (SA), s 7 *Natural Resources Management Act 2004* (SA), s 6(1)(d) *River Murray Act 2003* (SA), s 8 and sch 1 *Environmental Management and Pollution Control Act 1994* (Tas), sch 7 *Forest Practices Act 1985* (Tas).

425 See World Commission on Environment and Development, *Our Common Future* (1987) 44.

426 See para 57 of *Bentley v BGP Properties Pty Ltd* [2006] NSWLEC 34 (6 February 2006).

427 For example, see s 6(2) *Protection of the Environment Administration Act 1991* (NSW).

428 See paras 109, 110, 111, 112 and 117 of *Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133 (24 March 2006).

429 Notably in the Land and Environment Court of New South Wales, but also in other jurisdictions, initially with particular focus on the precautionary principle but recently inclusive of the broader meaning of ecologically sustainable development. See cases below.

430 *Associated Provincial Picture Houses v Wednesbury Corporation* (1948) 1 KB 223; here it was found that the role of a reviewing body in administrative review is simply to decide whether the decision was so unreasonable that no reasonable decision-maker could have made it. This would apparently limit the role that judicial administrative review would have in defining the content of a duty of care.

431 *Nicholls v Director General National Parks and Wildlife Service* (1994) 84 LGERA 397.

432 *Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133 (24 March 2006) See paras 127 to 183.

433 *Greenpeace Australia Ltd v Redbank Power Co Pty Ltd* (1994) 86 LGERA 143

434 *Brooks Lark & Carrick v Clarence City Council* [1997] TASRMPAT 61 (2 April 1997) *Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133 (24 March 2006).

435 *Bannister Quest Pty Ltd v Australian Fisheries Management Authority* [1997] FCA 819 (14 August 1997).

436 *Mclennan v Holden Ltd* [1999] SAERDC 83 No ERD-99-171 Judgement No OE83 (18 October 1999).

437 For more on approval of major projects including airport extensions, see *City of Botany Bay Council v Minister for Transport & Regional Development* [1999] FCA 1495 (4 November 1999). For major mining developments, see *CSR Ltd v Coffs Harbour City Council* (1995) NSWLEC 146 Also more

The series of cases on the meaning of the precautionary principle and ecologically sustainable development illustrates that ousting the courts in favour of administrative rule is unlikely to be effective where those administrative decisions have significant economic and political impacts.[438] The environmental duty of care could impact significantly upon contracts and property interests, as well as upon resource stewardship obligations. The unresolved multiple meanings (highlighted earlier in this article) will be brought into sharp focus. When this occurs we contend that the most articulate precedent available to the courts will be the common law, and that attempts to reconcile the common law duty of care with the environmental duty of care will require significant judicial creativity.

In addition, while statutory duties of care exclude private rights of action, they do not exclude the use of arguments about breach of statutory duty as prima facie evidence of negligence in disputes. Under such circumstances evidence of how administrative bodies have applied the statutory duty, or how courts have interpreted that duty, may be part of a claim for civil remedy.

The essential characteristic (and appeal) of a common law duty of care approach is that it provides a mechanism to move responsibility beyond what is written down in legislation, into the field of unwritten social obligations. This role of interpreting community mores and giving them legal effect if Parliament has not embodied them in statute has always been the role of the court. For these reasons, we would expect that like the precautionary principle the administrative approach to an environmental duty of care will not emerge untouched by judicial review.

3 The nature of the common law duty of care

Civil law is a private instrument which assists citizens to resolve disputes over their interests. This should be contrasted with a regulatory or administrative instrument through which government adjusts private interests or constrains private action. The common law duty of care does not purport to codify the types of conflict nor to specify the circumstances in which liability might arise. Detailed guidance is sparse, but the processes of judgement are sophisticated. Efficiencies from the common law process arise not from administration of instruments but from elegant judicial interpretative processes within a basic logical structure. This structure relies not upon words, but upon a shared understanding based on long history. Judicial culture and knowledge and contests between citizens are important parts of this process.

Reasonable care is determined by consideration of what a reasonable person would be expected to do under similar circumstances.[439] The actions of the individual are tested against this standard to determine if there is a breach of duty. Many factors are relevant to the decision about the existence and breach of the duty of care. These include; the assessment of the probability that the risk resulted from the conduct, the seriousness of the harm that may result from the conduct, the cost of preventing the risks associated with the conduct, and the social utility of what the person is doing.[440] Common practice of an industry or profession is relevant and the more that common practice has been followed,

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recently in the Anvill Hill case *Gray v Minister for Planning* [2006] NSWLEC 720 (27 November 2006). There is now an extensive literature on the judicial interpretation of this ostensibly administrative principle. For recent developments, see R J Whelan, C L Brown and David Farrier, 'The Precautionary Principle: What is it and how might it be applied', in Pat Hutchings, Daniel Lunney and Chris Dickman (eds), *Threatened Species Legislation: Is it just an act?* (2004). See also Jacqueline Peel, *The Precautionary Principle in Practice. Environmental Decision-making and Scientific Uncertainty* (2005).

438 For a detailed discussion of the early cases concerned with the precautionary principle, and the judicial treatment of similar sustainability enactments, see Paul Martin and Miriam Verbeek, *Cartography for Environmental Law. Finding new paths to effective resource use regulation* (2000) 76-88.

439 For a more detailed discussion of breach of duty, see Francis Trindade Peter. Cane and Mark Lunney, *The Law of Torts in Australia* (2007) ch 8.

440 The leading Australian authority is *Wyong Shire Council v Shirt* (1980) 146 CLR 40.

the more likely there will be no breach of the duty found. The courts are familiar with applying these rules to established categories, though administrative agencies may find the sophisticated thinking which is involved daunting.

As a pattern of interpretation of the duty of care is distilled from the common law, over time through social communication and education communities internalise these norms, and behaviour is modified. While we can accept the argument that restricting disputes to an administrative arena may be more efficient in dealing with particular issues, the counter would be that the effectiveness of civil litigation to shape norms of accountability cannot be readily replaced by administrative actions, because of the absence of testing of the reasons for decisions through informed discussion and courtroom debate. Whether one approach is preferable is a judgement call based on values as well as facts.

IV IMPLICATIONS OF A CIVIL DUTY CONCEPT

This paper has highlighted a concealed chasm between the expectations of different stakeholders over what a duty of care ought and will mean in practice. Duty of care involves an innovative combination of a common law concept, implemented through a variety of statutory approaches sometimes combined with scientific and management concepts which are intrinsically value-laden; applied administratively but with an impact on property interests with significant economic and environmental implications; the interpretation of which may be contested through contract, administrative and civil action as well as political processes. That we expect that this mix may pose challenges to the legal and political system ought not be surprising.

Some of the competing expectations (including those of legislatures) will not be met. The common law of negligence does not impose obligations to act reasonably in respect to all kinds of harm. For example, the common law usually imposes an obligation to act reasonably to avoid inflicting physical harm or damage to property on another. It does not impose the same general duty in relation to what are known as 'purely economic' losses, and there are limits on when a duty to act, as opposed to imposing a duty when acting, will be imposed. The role of 'duty' in the common law sets limits for liability arising from careless behaviour, using public policy considerations to determine when, how and to whom a general duty ought apply. These restrictions on duty reflect policy decisions that certain kinds of harm, or harm caused in a certain way, or by certain kinds of people, should not trigger liability even if caused negligently.[441] Civil duty of care is a conceptual framework for identifying boundaries of liability, taking into account the compromises required in making people liable for the consequences of their careless behaviour whilst allowing individuals reasonable autonomy to act as they wish.

The common law duty of care protects a limited range of interests which are essentially private (eg health, property, money). It does not extend to what might be called 'public harms' unless such harms coincidentally correspond to private harms. How the courts might respond to this difference in fundamental conceptualisation of responsibility at law is unknown.

In addition, the primary function of the common law action in negligence is compensation; a monetary award of damages for negligence that has resulted in a certain kind of loss to the plaintiff. The right to sue is limited to the party who has suffered loss. The enquiry is generally limited to looking back in time and assessing whether the conduct of the defendant that caused the loss was careless. Once a court ruling has been made on whether conduct was careless or not, that ruling is a guide to how courts will evaluate future conduct. In this way the common law duty in the law of negligence is both backward and forward looking – backward to determine after the event whether the conduct was

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441 There is academic controversy over the range and legitimacy of the limited or no duty situations For a sample of competing views see Jane Stapleton, 'Duty of Care Factors: a Selection from the Judicial Menus' in Peter Cane and Jane Stapleton (eds), *The Law of Obligations: Essays in Celebration of John Fleming* (1998); Allan Beever, *Rediscovering the Law of Negligence* (2007) Robert Stevens, *Torts and Rights* (2007).

negligent, and forward by providing guidance for future conduct, but the latter relies on the former. The common law of negligence does not provide judgements about whether conduct about to be undertaken would be careless, but at the heart of many of the political expectations is the belief that this is the role of the common law duty. There is a significant gap between the role of the common law duty of care and what is expected in enacting it legislatively.

A third difference between the common law and some expectations of a statutory duty of care for the environment relates to the standards of conduct each wishes to encourage. The common law duty of care is a minimal standard. It determines what conduct triggers compensation. It promotes accountability and is not concerned with rewarding virtue. The common law has no interest in determining whether other conduct might have been better in promoting some desired end. Given that the statutory duties of care are usually phrased in terms of reasonableness, it might be thought that the same would apply to them but advocacy of statutory duties of care suggests that they will promote ethical land management. If promoting virtue in land management is its goal then the statutory duty of care is intended to be a very different beast from the common law duty of care in negligence.

V CONCLUSION

Disputes about natural resource stewardship by farmers typically centre on three issues; definition of the boundaries of their responsibilities, appropriate principles to guide their behaviour once responsibility is identified and cost apportionment between society and farmers. Clearer boundaries of responsibility and norms for stewardship are desirable to help resolve these issues, and to allocate costs fairly. Competing interests often agree politically that the duty of care, derived from the common law, is a useful concept to simultaneously guarantee freedom of action by farmers and restrict harmful farming practices, protect access to resources and limit access to resources, protect the private business interests of farmers and guarantee social good environmental outcomes from farming. A statutory duty of care for the environment or natural resources now exists in nine instances in four Australian states. These statutory versions are worthy as general principles but do not provide sufficient clarity about what the obligations they create mean in practice. Ultimately this problem will have to resolved. Our expectation is that it will have to be resolved by the courts by the application of the common law principles which have proven so appealing in theory to so many interest groups. Some of the competing expectations that are masked by broad political appeal of the abstraction embodied in the ‘duty’ will not be met.

At common law the duty of care functions as a two stage process for resolving conflicts and setting flexible standards. The value of this process is as a boundary setting mechanism based upon examining contexts and relationships to decide whether one person is under an obligation to act reasonably to another to prevent certain potential harms. The boundary of responsibility for harm depends on whether the harms, harm causing practices or people involved are of a type that for policy reasons ought to be excluded from liability. The behavioural norm aspects of a duty, which define how one needs to act to satisfy the duty, arise once the general obligation to take reasonable care is established. The norms are established by patterns of judicial decision making over many particular claims of breach. Creating these patterns requires that the issues be contested before the courts. There are obstacles that the courts are likely to encounter in trying to develop the practical meaning for a statutory duty of care for the environment based on the common law. These include; the focus on physical harm to private interests, limits on liability for policy reasons that restrict the harms and causes that can lead to liability and the people that can be found to owe an obligation, a reliance on loss to trigger the norm development process, and a focus on the minimal standard of accountability as reasonable care.

These are challenging concerns, particularly when consensus for a statutory duty of care has been hard won. Our intent with this paper is not to question the policy goals, nor to criticise the approach that has been adopted. Our intention is to highlight that to make statutory duties of care for the environment effective will require a great deal more interpretative support from the courts, and involve significant jurisprudential steps. We anticipate that clarification of the legal meaning of a duty of care will leave some of the competing hopes that led to the incorporation of this duty into law being frustrated. These are matters to which legal policy makers may need to give more attention.

Journal-Article Format for PhD Theses at the University of New England

STATEMENT OF AUTHORS' CONTRIBUTION

(To appear at the end of each thesis chapter submitted as an article/paper)

Mark Shepheard and Paul Martin "The multiple meanings and practical problems with making a duty of care work for stewardship in Agriculture " MqJICEL (2009) Vol 6 pp191-215.

We, the PhD candidate and the candidate's Principal Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated in the *Statement of Originality*.

	Author's Name (please print clearly)	**% of contribution**
Candidate	Mark Shepheard	80
Other Authors	Paul Martin	20

Name of Candidate: Mark SHEPHEARD

Name/title of Principal Supervisor: Professor Paul MARTIN

[redacted]

14 April 2010

Candidate Date

[redacted]

14/4/10

_____ _____

Principal Supervisor Date

Journal-Article Format for PhD Theses at the University of New England

STATEMENT OF ORIGINALITY

(To appear at the end of each thesis chapter submitted as an article/paper)

Mark Shepheard and Paul Martin "The multiple meanings an practical problems with making a duty of care work for stewardship in Agriculture " MqJICEL (2009) Vol 6 pp191-215.

We, the PhD candidate and the candidate's Principal Supervisor, certify that the following text, figures and diagrams are the candidate's original work.

Type of work	Page number/s*
Competing expectations and meanings	194-196
Boundaries of responsibility and farming	196-202
Statutory versions and implementation	204-209
Judicial review and sustainable development	209-210
The nature of a common law duty of care	212
Competing standards	213-214

* This refers to page numbers in the published article rather than the thesis.

Name of Candidate: Mark SHEPHEARD

Name/title of Principal Supervisor: Professor Paul MARTIN

[redacted]

Candidate — 14 April 2010 Date

[redacted]

Principal Supervisor — 14/4/10 Date

APPENDIX 2

A2.1: Information for Interviewees

A2.2: Pre interview questions for interviewees

A2.1: Information for Interviewees

Australian Centre for Agriculture and Law - University of New England

Contact: Mark Shepheard
Phone: 0447 532 488
E-mail: Mark.Shepheard@une.edu.au
Address: School of Law
University of New England
Armidale NSW 2351

Date

Dear ,

Re: Duty of Care in Sustainable Irrigated Agriculture.

Thank you for agreeing to participate in my research about duty of care. A duty of care has been promoted as a useful concept to describe a land managers' responsibility for conservation. This is reflected in legislation in several states, with support for the concept from farming and conservation interest groups. Agreement seems to cease at that point, and debate about the practical meaning of a duty can be a source of conflict about property rights, cost apportionment for ecosystem service provision and the appropriate regulatory approach.

A duty of care approach involves understanding the practical meaning of; **i)** reasonable care, **ii)** foreseeable harm, **iii)** standard of care, **iv)** common practice and, **v)** what the reasonable person would do in the circumstances. I would like to take the opportunity to speak with you in person about your opinions on the meaning of these elements related to agriculture. My focus for the research is on large area irrigation farming systems.

I am happy to come and see you at your office and will be in touch to arrange a suitable time. Please find following some questions to consider before we meet, an information sheet about these interviews, and a consent form formalising your agreement to participate in the research. I will collect the consent form when we meet. I look forward to meeting you and please contact me if you have any questions about the project.

Yours sincerely,

Mark Shepheard, M.Sc. (Oxford)

Questions to set the scene for our discussion

This research is about the practical meaning of a duty of care on large area, mixed irrigation farms in the Riverina. A duty of care has been proposed as an alternative way to achieve stewardship outcomes without excessive regulation. I want to explore what it means in practice to carry out a duty of care on farm and identify the links to regional outcomes.

There are some key concepts used in a legal Duty of Care: Reasonable Care, Foreseeable Harm, Standard of Care, and Common Practice. It is these ideas, applied to farming that I want to talk more about when we meet for the anonymous interview.

The final stage of the research will take the practical meanings and use them in an experiment about a conflict over to natural resource management and irrigated agriculture. This will help to establish whether a duty approach is useful in achieving stewardship outcomes from large area irrigation farms.

The following questions are a prompt to help you focus on the issues. Please read through the questions and jot down your thoughts to prepare for the interview. The questions look at practices, risk and limits of responsibility as farm management themes that relate to a duty of care and irrigation agriculture.

If you are uncertain about the meaning of any question, simply jot down the thoughts that it triggers. Our aim is to explore ideas rather than to restrict your views.

(i) Farm management practices

a. What do you think 'reasonable care' might mean in relation to irrigation farm management practice?

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b. What formal standards of care already exist for farm soil, water, vegetation, and ecosystem management practices to achieve sustainable irrigated agriculture?

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(ii) Risks of harm

a. What do you see are the most important risks of harm from irrigated agriculture to soil, water, vegetation and ecosystems?

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b. Who (or what things of value to people) do you think is potentially affected by the risks of harm you identified above?

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(iii) Limits of responsibility

a. For the risks of harm you identified above, who is or should be responsible for preventing the risk?

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Australian Centre for Agriculture and Law, and the School of Law

University of New England, Armidale NSW 2351

Contact: Mark Shepheard
Phone: 0447 532 488
E-mail: Mark.Shepheard@une.edu.au
Address: School of Law
University of New England
Armidale NSW 2351

Information Sheet

The Practical Meaning of Duty of Care in Sustainable Irrigated Agriculture.

This research aims to make a contribution to the debate about sustainable irrigated agriculture by providing further definition about responsibility and stewardship. Should you agree to participate in the research, your opinions will be utilised in the formation of an objective view about the concept of a duty of care and its application to irrigation. It is emphasised that as a participant you would not be a subject of the research but a participant in developing an informed view that will contribute to further understanding about the concept. The research is funded by the Primary Industries Innovation Centre (PIIC, a joint initiative between the NSW Department f Primary Industries and the University of New England), and the CRC for Irrigation Futures (CRCIF) .

After reading this information sheet, please clarify any questions, read the separate consent form and please sign it if you agree to continue as a participant in the research project. You are free to withdraw your consent and discontinue participation in the research at any time.

Your participation in this research is briefly described below (should you agree to participate);

Your involvement	Types of participation
✗	1. **Stakeholder Interviews**: These are carried out with individuals or groups (if appropriate), and should take about one hour for individuals or up to two hours if held with a group. The interviews are structured around establishing insights about what it means in practice to discharge a duty of care.

- Participation will be audio recorded to allow for accurate transcription of the discussion.
- Audio recordings will be kept in a secure location by the researcher for the duration of the research and for five years following the completion of the research, when it will be destroyed.
- Information from the transcribed recordings will be coded so that participants remain anonymous. None of this material will be used to draw attention to the contribution of individual participants.
- You must be 18 years of age or older to participate in this research
- Your consent to participate form will be retained in a secure location by the researcher for the duration of the project and for five years following the project, when it will then be destroyed.
- This project is due to be completed in June 2009 and it will be written up in a thesis submitted for a PhD degree at the University of New England. It is intended also to publish findings of the research in journal publications, industry publications and local forums related to irrigated farming, as appropriate.
- It is unlikely that this research will raise any personal or upsetting issues but in the event that it does you may wish to contact your local Community Health Centre.

Please contact Mark Shepheard (contact details over the page) if you have any questions about the research generally or your participation. Alternately you can contact the supervisor of the project, Professor Paul Martin at the University of New England, phone: (02) 6773 3811, E-mail: Paul.Martin@une.edu.au or via the postal address shown over the page.

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE07/155, valid to 2 October 2008).

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:

Research Services
University of New England
Armidale NSW 2351
Telephone: (02) 6773 3449, Facsimile: (02) 6773 3543
E-mail: ethics@une.edu.au

Australian Centre for Agriculture and Law, and the School of Law

University of New England, Armidale NSW 2351

Contact: Mark Shepheard
Phone: 0447 532 488
E-mail: Mark.Shepheard@une.edu.au
Contact Address: 5 Mulga Street
Leeton NSW 2705

Participant Consent Form

The Practical Meaning of Duty of Care in Sustainable Irrigated Agriculture.

Thank you for agreeing to participate in this PhD research. Your opinions will be a valuable contribution to providing further definition about responsibility and stewardship in the debate about sustainable irrigated agriculture. Your opinions will be utilised in forming an objective view about the concept of a duty of care and its application to irrigation. It is emphasised that you are not a subject of the research but a participant in developing an informed view that will contribute to further understanding about the concept.

Please read the *'Information Sheet for Participants'* provided with this form and clarify any questions you have. Also, please read the remainder of this consent form and sign it if you agree to continue as a participant in the research project. You are free to withdraw your consent and discontinue participation in the research at any time.

This consent form will be retained in a secure location by the researcher for a period covering the duration of the research project and for five years following the project, when it will be destroyed.

Statement of Consent

I _____ *(participant)* have read the information contained in the 'Information Sheet for Participants' and any questions I have asked have been answered to my satisfaction. In signing this consent form I confirm that:

(i) I am 18 years of age or older,

(ii) I agree to participate in this activity

(iii) I agree that my participation can be recorded by audio for interviews and by audio-visual means for the negotiation groups

(iv) I realise that I may withdraw my consent and discontinue participation at any time

(v) I agree that research data gathered for the study may be published, provided my name is not used.

Participant or authorised representative: _____ Date: _____

Investigator: _____ Date: _____

A2.2: Pre interview questions for interviewees

Questions to set the scene for our discussion

This research is about the practical meaning of a duty of care on large area, mixed irrigation farms in the Riverina. A duty of care has been proposed as an alternative way to achieve stewardship outcomes without excessive regulation. I want to explore what it means in practice to carry out a duty of care on farm and identify the links to regional outcomes.

There are some key concepts used in a legal Duty of Care: Reasonable Care, Foreseeable Harm, Standard of Care, and Common Practice. It is these ideas, applied to farming that I want to talk more about when we meet for the anonymous interview.

The final stage of the research will take the practical meanings and use them in an experiment about a conflict over to natural resource management and irrigated agriculture. This will help to establish whether a duty approach is useful in achieving stewardship outcomes from large area irrigation farms.

The following questions are a prompt to help you focus on the issues. Please read through the questions and jot down your thoughts to prepare for the interview. The questions look at practices, risk and limits of responsibility as farm management themes that relate to a duty of care and irrigation agriculture.

If you are uncertain about the meaning of any question, simply jot down the thoughts that it triggers. Our aim is to explore ideas rather than to restrict your views.

(iv) Farm management practices

a. What do you think 'reasonable care' might mean in relation to irrigation farm management practice?

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b. What formal standards of care already exist for farm soil, water, vegetation, and ecosystem management practices to achieve sustainable irrigated agriculture?

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(v) Risks of harm

a. What do you see are the most important risks of harm from irrigated agriculture to soil, water, vegetation and ecosystems?

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b. Who (or what things of value to people) do you think is potentially affected by the risks of harm you identified above?

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(vi) Limits of responsibility

a. For the risks of harm you identified above, who is or should be responsible for preventing the risk?

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APPENDIX 3

A3.1: Good Agricultural Practice Act 2008

A3.2: Statement of Claim

A3.3: Site Plan

A3.4: Moot Observation Data Sheets

- A 3.4.1: Individual Participants Expectations
- A3.4.2: Moot Observation Questions for Skilled Observers (1)
- A3.4.3: Moot Observation Questions for Skilled Observers (2)
- A3.4.4: Moot Observation Questions for General Observers
- A3.4.5: Individual Assessment
- A3.4.6: Focus Group

A3.1: Good Agricultural Practice Act 2008

Good Agricultural Practice Act 2008

1. Short Title

The act is to be known as the Good Agricultural Practice Act

2. Object of the act

To protect the New England environment while allowing for agricultural development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (ecologically sustainable development)[442].

3. Definitions

(i) Agricultural land managers are persons involved with decision making about agriculture, grazing or pastoral land use, including;
   a. freehold title holders
   b. lease holders
   c. permit holders
   d. occupiers
   e. employees and
   f. contractor's.

(ii) Land refers to natural resources associated with agriculture, forestry, grazing and pastoral use.

(iii) Ecologically sustainable development has the same meaning as in section 6 (2) of the *Protection of the Environment Administration Act* 1991 (NSW)[443]

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[442] Environmental Protection Act 1994. based on s.3.

[443] Ecologically sustainable development requires the effective integration of economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs:

(iv) Natural resources has the same meaning as in section 5 of the *Natural Resources Commission Act* 2003 (NSW)[444]

4. Duty of Care

(i) General Duty
   a. Not withstanding any legislation to the contrary, agricultural land managers have a duty of care to take all reasonable measures to prevent or minimise environmental harm to the land[445]

(ii) In determining what is reasonable for the purposes of subsection (i), regard must be had, amongst other things, to the object of this act, and to[446];
   a. the need to act responsibly in relation to the management of natural resources, and the potential impact of a failure to comply with the relevant duty
   b. any environmental, social, economic or practical implications, including any relevant assessment of costs and benefits associated with a particular course of action, the financial implications of various measures or options, and the current state of technical and scientific knowledge
   c. any degrees of risk that may be involved
   d. the nature, extent and duration of any harm
   e. the extent to which a person is responsible for the management of the natural resources
   f. the significance of the natural resources, including in relation to the environment and to the economy (if relevant)
   g. the extent to which an act or activity may have a cumulative effect on any natural resources
   h. any pre-existing circumstance, and the state or condition of the natural resources

5. Civil liability

(a) the precautionary principle-namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by: (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and (ii) an assessment of the risk-weighted consequences of various options, (b) inter-generational equity-namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations, (c) conservation of biological diversity and ecological integrity-namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration, (d) improved valuation, pricing and incentive mechanisms-namely, that environmental factors should be included in the valuation of assets and services, such as: (i) polluter pays-that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement, (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste, (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.2 Protection of the Environment Administration Act 1991.

444 Natural Resources Commission Act 2003. (NSW) See section 5, "natural resource management" extends to the following matters relating to the management of natural resources: (a) water, (b) native vegetation, (c) salinity, (d) soil, (e) biodiversity, (f) coastal protection, (g) marine environment (except a matter arising under the *Fisheries Management Act* 1994 (NSW) or the *Marine Parks Act* 1997 (NSW)), (h) forestry, (i) any other matter concerning natural resources prescribed by the regulations.

445 Environmental Protection Act 1994. based on s.319 General Environmental Duty

446 Natural Resources Management Act 2004. Based on s.9

(i) An agricultural land manager may be held liable to any person who suffers loss or damage from the failure of the agricultural land manager to discharge the duty of care for land.

(ii) If, in an action under (i) above, the court finds that the defendant has caused environmental harm by a contravention of this Act, the court may order the following remedies in favour of the person bringing the action:

(a) damages for loss of income, loss or damage to property or incurred costs or expenses in preventing or minimising, or attempting to prevent or minimise, loss or damage, an amount of compensation it considers appropriate for the loss or damage suffered or the costs and expenses incurred; and

(b) on order that the defendant take stated action to rehabilitate or restore the environment because of the contravention.

6. Onus

(i) For the purpose of section 5 subsection (i), failure to discharge the duty is proved on the balance of probabilities.

Bibliography

Environmental Protection Act 1994 (Qld).

Protection of the Environment Administration Act 1991 (NSW).

Natural Resources Commission Act 2003 (NSW).

Natural Resources Management Act 2004 (Sth Aust).

A3.2: Statement of Claim

IN THE LAND AND ENVIRONMENT COURT
OF NEW ENGLAND

COURT OF APPEAL

ARMIDALE REGISTRY

BETWEEN	**AUSTRALIAN BUSH TRUSTEES LIMITED** **(APPELLANT)**
AND	**HENRY HULL** **(RESPONDENT)**
BETWEEN	**WORCESTER WETLAND ACTION GROUP LIMITED** **(APPELLANT)**
AND	**HENRY HULL** **(RESPONDENT)**
INTERVENOR FOR THE APPELLANTS	**ATTORNEY GENERAL FOR THE STATE OF NEW ENGLAND**

AGREED FACTS

1. Mr. Henry Hull (Hull) is the freehold title holder of 1000 hectares of land at Fairweather, in the Western District of New England (see plan 1).

2. Hull is also the lessee of 200 hectares of Crown Land. This leasehold land lies along the northwest boundary of Hull's freehold land (see plan 1).

3. The northern boundary of the Crown lease abuts property owned and managed by the Australian Bush Trustees (ABT) a private not for profit charitable organisation. The western and southern boundary of the Crown lease and the western boundary of the freehold lie adjacent to a Ramsar Convention listed wetland[1] (see plan 1).

4. A declared Ramsar wetland is a wetland or part of a wetland, designated by the Commonwealth under section 17 of the *Environment Protection and Biodiversity Conservation Act* 1999 (Cth) and Article 2 of the Ramsar Convention, for inclusion in the list of wetlands of international importance. The Ramsar Convention is the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, done at Ramsar, Iran on 2 February 1971, as amended and in force for Australia from time to time (the English text of the convention is set out in Australian Treaty Series 1975 No. 48).

5. The declared Ramsar wetland is on land owned and managed by the Worcester Wetland Action Group Limited (WWAGL). Drainage from the irrigated areas of Hull's property flows into the Ramsar wetland.

6. Hull uses 500 hectares of the freehold property for irrigation of summer row crops in rotation with winter cereals on beds.

7. The Crown lease provides for Hull to manage a rangeland sheep grazing enterprise.

8. Hull obtains water through a surface water licence granting access to the Worcester River and a bore licence. The surface water licence (34SLworc1668) grants a 2000 mega-litre entitlement subject to allocation and the bore licence (34BLworc0203) has an entitlement of 1200 mega-litres, subject to the allocation rules of the Lower Worcester Groundwater sharing plan, prepared by the Western New England Catchment Management Authority (CMA). Both licences are issued under the *Water Management Act* 2000 (NSW).

9. 300 hectares of the freehold is identified by the CMA regional biota management plan as a threatened vegetation community of high conservation value that is habitat for threatened fauna (see plan 1). This area is not subject to a management agreement between Hull and the regional natural resource management authority.

10. Hull proposes that this area of vegetation is of high conservation value due to his deliberate management actions that have seen the area conserved when it could have been cleared and used for cropping under irrigation and grazing. Hull claims that this voluntary and deliberate management activity represents a loss of production potential which should attract compensation from the government. Mr Hull is proposing that his virtuous farm management be recognised.

11. It is agreed that the Western New England Catchment Management Authority (CMA) is responsible for water management and regional biota management planning as mentioned above. The CMA is also the consent authority for clearing applications lodged under the *Native Vegetation Act* 2004 (NSW).

12. During January 2008, Hull lodged an application for development consent to clear native vegetation associated with redevelopment of 150 hectares of irrigation layout and installation of overhead lateral move irrigation equipment. The proposal was for removal of 185 mature scattered paddock trees across the area of redevelopment.

13. On 19 March 2008 consent was granted by the CMA for clearing of two areas of scattered paddock trees, amounting to 90 trees with the remaining trees contained in a belt to be redeveloped as a corridor linking the regionally significant threatened vegetation community with the river (see Plan 1). This consent was issued under the *Native Vegetation Act* 2004 (NSW).

ACTIONS IN THE TRIAL COURT

1. Two actions were launched in the Land and Environment Court of New England (the trial court)
2. ABT and WWAGL were Plaintiffs at trial
3. In the first action, ABT sued Hull for breach of the statutory duty of care under section 4(i) of the *Good Agricultural Practice Act*, 2008 (New England)[2] and sought compensation for economic harm. The basis of the claim for economic harm was a spotted tree creeper habitat conservation programme run by ABT on their land under contract with a philanthropic investment group.
4. The spotted tree creeper and its habitat are protected under the *Threatened Species Conservation Act* 1995 (NSW).
5. ABT claimed that deterioration of spotted tree creeper habitat on their property was due to degradation of rangeland vegetation on land leased by Hull and used for grazing. This has resulted in a breach of ABT's investment contract (see para. '4' above) and consequent loss of investment support.
6. The trial judge found that Hull did not breach his duty of care in the first action. The trial judge found that Hull was a prudent land manager who had sought to manage his land for conservation and production without recourse to state funding. The trial judge also found that Hull had clearly demonstrated his credentials in lawfully seeking and obtaining approval for removal of vegetation in accordance with state laws elsewhere on his property.

7. In the second action, WWAGL sued Hull for degrading the ecological character of the declared Ramsar wetland under section 500 of the *Environment Protection and Biodiversity Conservation Act*, 1999 (Cth).[3]
8. Under s.16 of the *Environment Protection and Biodiversity Conservation Act* 1999 (Cth) a person must not take an action that has, will have or is likely to have a significant impact on the ecological character of a declared Ramsar wetland.
9. This degradation of the wetland caused WWAGL to invest a substantial amount of additional money into the restoration and management of the site. WWAGL claimed that discharges of irrigation drainage water altered the wetting regime and contaminated the wetland ecosystem, causing alteration of its ecological character and an increase in management costs.
10. The trial judge found that Hull did not breach a duty of care to WWAGL. Hull was found to have managed his property and irrigation cropping system as a reasonable farmer in the circumstances with due attention to farming and conservation interests, and should not be held liable for off site impacts beyond what any reasonable farmer would be expected to foresee.
11. The trial judge found each plaintiff had the responsibility to manage their circumstances without seeking to shift the burden for loss onto a convenient neighbour.

THE ABT APPEAL

1. Leave has been granted for the New England Attorney General to intervene and support the ABT appeal against the decisions of the trial judge. This action has been taken because of the significance of the decision in the trial and its potential impact beyond the bounds of the case, and to uphold parliamentary intent in creating a statutory duty of care.
2. It is claimed that the trial judge erred in finding no breach of a duty of care established by the *Good Agricultural Practice Act,* 2008 (New England).
3. In a preliminary hearing, the court, with consent of the parties directed that given the agreed facts, the following questions are to be argued:
   (i) Does s.4 of the *Good Agricultural Practice Act* 2008 (New England) require an objective or subjective test?
   (ii) If it is objective, what is meant by 'reasonable measures'?

THE WWAGL APPEAL

1. Leave has been granted for the New England Attorney General to intervene and support the WWAGL appeal against the decisions of the trial judge. This action has been taken because of the significance of the decision in the trial and its potential impact beyond the bounds of the case.
2. It is claimed that the trial judge erred in finding no breach of a duty of care in relation to degrading the ecological character of a declared Ramsar wetland.

3. In a preliminary hearing, the court, with consent of the parties directed that given the agreed facts, the following question is to be argued:

    (i) What is meant by 'a significant impact on the ecological character of a declared Ramsar wetland' under s.16 of the *Environment Protection and Biodiversity Conservation Act* 1999 (Cth)?

LEGISLATION

Good Agricultural Practice Act 2008 (New England)

see 'Appendix 3.1' of thesis

Environmental Protection Act 1994 (Qld)

s.319 General environmental duty

(1) A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm (the general environmental duty).

(2) In deciding the measures required to be taken under subsection (1), regard must be had to, for example--

(a) the nature of the harm or potential harm; and

(b) the sensitivity of the receiving environment; and

(c) the current state of technical knowledge for the activity; and

(d) the likelihood of successful application of the different measures that might be taken; and

(e) the financial implications of the different measures as they would relate to the type of activity.

Natural Resources Management Act 2004 (Sth Aust)

s.9 General Statutory Duties

(1) A person must act reasonably in relation to the management of natural resources within the State.

(2) In determining what is reasonable for the purposes of subsection (1), regard must be had, amongst other things, to the objects of this Act, and to—

(a) the need to act responsibly in relation to the management of natural resources, and the potential impact of a failure to comply with the relevant duty; and

(b) any environmental, social, economic or practical implications, including any relevant assessment of costs and benefits associated with a particular course of action, the financial implications of various measures or options, and the current state of technical and scientific knowledge; and

(c) any degrees of risk that may be involved; and

(d) the nature, extent and duration of any harm; and

(e) the extent to which a person is responsible for the management of the natural resources; and

(f) the significance of the natural resources, including in relation to the environment and to the economy of the State (if relevant); and

(g) the extent to which an act or activity may have a cumulative effect on any natural resources; and

(h) any pre-existing circumstance, and the state or condition of the natural resources.

Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)

s.16 Requirement for approval of activities with a significant impact on a declared Ramsar wetland

(1) A person must not take an action that:

(a) has or will have a significant impact on the ecological character of a declared Ramsar wetland; or

(b) is likely to have a significant impact on the ecological character of a declared Ramsar wetland.

Civil penalty:

(a) for an individual--5,000 penalty units;

(b) for a body corporate--50,000 penalty units.

(2) Subsection (1) does not apply to an action if:

(a) an approval of the taking of the action by the person is in operation under Part 9 for the purposes of this section; or

(b) Part 4 lets the person take the action without an approval under Part 9 for the purposes of this section; or

(c) there is in force a decision of the Minister under Division 2 of Part 7 that this section is not a controlling provision for the action and, if the decision was made because the Minister believed the action would be taken in a manner specified in the notice of the decision under section 77, the action is taken in that manner; or

(d) the action is an action described in subsection 160(2) (which describes actions whose authorisation is subject to a special environmental assessment process).

(3) In this Act: *"ecological character"* has the same meaning as in the Ramsar Convention[4].

s.17 What is a declared Ramsar wetland?

Areas designated for listing

(1) A wetland, or part of a wetland, designated by the Commonwealth under Article 2 of the Ramsar Convention for inclusion in the List of Wetlands of International Importance kept under that Article is a ***declared Ramsar wetland*** as long as the wetland or part is not:

(a) excluded by the Commonwealth from the boundaries of a wetland in the List under that Article; or

(b) deleted by the Commonwealth from the List under that Article.

Areas declared by the Minister

(2) A wetland, or part of a wetland, is also a ***declared Ramsar wetland*** for the period for which a declaration of the wetland as a declared Ramsar wetland is in force.

s. 500 Liability for loss or damage caused by contravention

(1) A person (the ***wrongdoer***) who contravenes this Act or the regulations is liable to pay to another person (the ***affected party***) who suffers loss or damage arising from the contravention an amount equal to the other person's loss or damage.

(2) Without limiting the amount payable under subsection (1), the loss or damage a person suffers from a contravention of this Act or the regulations includes the expenses and liabilities (if any) reasonably incurred by the affected party to:

(a) repair or remove any condition that arises from the act or omission constituting the contravention and relates to:

(i) the environment; or

(ii) if the contravention was of a provision of Part 3--the matter protected by the provision; or

(b) mitigate any damage that arises from the act or omission constituting the contravention and relates to:

(i) the environment; or

(ii) if the contravention was of a provision of Part 3--the matter protected by the provision; or

(c) prevent any damage likely to arise from the act or omission constituting the contravention and relates to:

(i) the environment; or

(ii) if the contravention was of a provision of Part 3--the matter protected by the provision.

Note: This makes the person who contravenes the Act liable to pay the Commonwealth the expenses reasonably incurred in taking steps under section 499 in relation to the contravention.

(3) An amount payable under subsection (1) is a debt due to the affected party, recoverable in a court of competent jurisdiction.

(4) If 2 or more persons are liable under subsection (1) to pay an amount in respect of the same loss or damage, those persons are jointly and severally liable to pay the sum.

(5) A finding by a court in criminal proceedings or civil proceedings that the wrongdoer contravened this Act or the regulations is admissible as evidence of that fact in proceedings to recover an amount payable under subsection (1).

(6) This section applies:

(a) whether or not the contravention was an offence; and

(b) whether or not the provision contravened is a civil penalty provision.

(7) This section does not apply to a decision (or a failure to make a decision or conduct for the purposes of making a decision) purportedly under this Act or the regulations that contravenes this Act or the regulations.

Ramsar Convention Annex to Resolution VI.1: Working definitions of ecological character, guidelines for describing and maintaining the ecological character of listed sites, and guidelines for operation of the Montreux Record. Made at 6th Meeting of the Conference of the Contracting Parties, Brisbane, Australia. 19-27 March 1996.

1. Working definitions

1.1. Ecological character: *The "ecological character" is the structure and inter-relationships between the biological, chemical, and physical components of the wetland. These derive from the interactions of individual processes, functions, attributes and values of the ecosystem(s).*

Note: Change in the ecological character of a site is interpreted as meaning adverse change, in line with the context of Article 3.2 of the Convention and Recommendation 4.8 (1990), which established the Montreux Record. The definition refers explicitly to adverse change caused by human activities. It excludes the process of natural evolutionary change occurring in wetlands. It

is also recognized that wetland restoration and/or rehabilitation programmes may lead to favourable human-induced changes in ecological character.

1.2. Change in ecological character: *"Change in ecological character" of a wetland is the impairment or imbalance in any of those processes and functions which maintain the wetland and its products, attributes and values.*

The following notes on wetland processes, functions, values, products and attributes, are derived from the *Ramsar Convention Manual* (Davis, 1994); *Wetland Conservation: A Review of Current Issues and Required Action* (Dugan, 1990); "Building a new approach to the investigation and assessment of wetland ecosystem functioning" in Mitsch, *Global Wetlands: Old World and New* (Maltby, 1994); and "Defining new procedures of functional assessment for European river marginal wetland ecosystems" (Maltby, in press).

Processes are changes or reactions which occur naturally within wetland ecosystems. They may be physical, chemical or biological.

Functions are activities or actions which occur naturally in wetlands as a product of the interactions between the ecosystem structure and processes. Functions include flood water control; nutrient, sediment and contaminant retention; food web support; shoreline stabilization and erosion controls; storm protection; and stabilization of local climatic conditions, particularly rainfall and temperature.

Values are the perceived benefits to society, either direct or indirect, that result from wetland functions. These values include human welfare, environmental quality and wildlife support.

Products generated by wetlands include: wildlife resources; fisheries; forest resources; forage resources; agricultural resources; and water supply. These products are generated by the interactions between the biological, chemical and physical components of a wetland.

Attributes of a wetland include biological diversity and unique cultural and heritage features. These attributes may lead to certain uses or the derivation of particular products, but they may also have intrinsic, unquantifiable importance.

AUTHORITIES

Goldman v Hargrave [1966] 115 CLR 458

Cambridge Water v Eastern Counties Leather [1994] 2 AC 264

Perre v Apand Pty Ltd [1999] 198 CLR 180

Blue Circle Industries PLC v Ministry of Defence [1999] Ch 289

Minister for the Environment & Heritage v Greentree (No 3) [2004] FCA 1317

A. Gardner, "The Duty of Care for Sustainable Land Management" (1998) 5 *The Australasian Journal of Natural Resources Law and Policy*.

P. Cane, "Are Environmental Harms Special?" (2001) 13 *Journal of Environmental Law* 17.

The multiple meanings for a duty of care (see Table 1.1, Thesis Chapter 1).

Endnotes

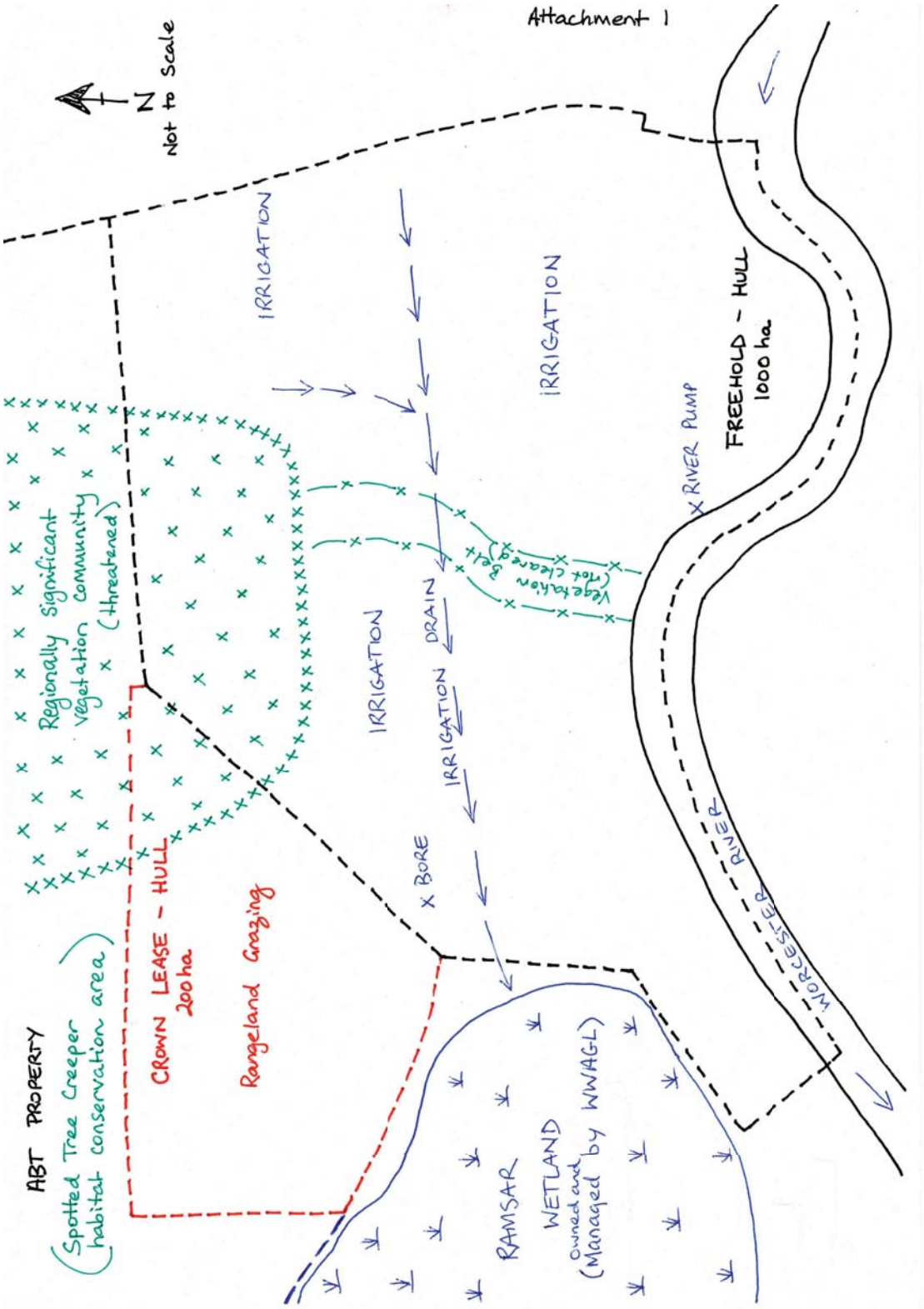
[1] *Environment Protection and Biodiversity Conservation Act* 1999 (Commonwealth), see section 17.

[2] *Good Agricultural Practice Act* 2008 (New England), s.5(i) An agricultural land manager may be held liable for failure to discharge the duty of care for land. This is a fictitious statute developed for the research moot in order to create a duty of care for testing. The object of the act is based on s.3 the *Environmental Protection Act* 1994 (Queensland), and the general duty based on s.319. Determination of what is reasonable is based on s.9 of the *Natural Resources Management Act* 2004 (South Australia). The meaning of natural resources follows s.5 of the *Natural Resources Commission Act* 2003 (New South Wales), and ecologically sustainable development follows s.6(2) of the Protection of the Environment Administration Act 1991 (New South Wales).

[3] *Environment Protection and Biodiversity Conservation Act* 1999 (Commonwealth) Section 500 Liability for loss or damage caused by contravention; (1) A person (the *wrongdoer*) who contravenes this Act or the regulations is liable to pay to another person (the *affected party*) who suffers loss or damage arising from the contravention an amount equal to the other person's loss or damage. (2) Without limiting the amount payable under subsection (1), the loss or damage a person suffers from a contravention of this Act or the regulations includes the expenses and liabilities (if any) reasonably incurred by the affected party to: (a) repair or remove any condition that arises from the act or omission constituting the contravention and relates to: (i) the environment; or (ii) if the contravention was of a provision of Part 3--the matter protected by the provision; or (b) mitigate any damage that arises from the act or omission constituting the contravention and relates to: (i) the environment; or (ii) if the contravention was of a provision of Part 3--the matter protected by the provision; or (c) prevent any damage likely to arise from the act or omission constituting the contravention and relates to: (i) the environment; or (ii) if the contravention was of a provision of Part 3--the matter protected by the provision. Note: This makes the person who contravenes the Act liable to pay the Commonwealth the expenses reasonably incurred in taking steps under section 499 in relation to the contravention. (3) An amount payable under subsection (1) is a debt due to the affected party, recoverable in a court of competent jurisdiction. (4) If 2 or more persons are liable under subsection (1) to pay an amount in respect of the same loss or damage, those persons are jointly and severally liable to pay the sum. (5) A finding by a court in criminal proceedings or civil proceedings that the wrongdoer contravened this Act or the regulations is admissible as evidence of that fact in proceedings to recover an amount payable under subsection (1). (6) This section applies: (a) whether or not the contravention was an offence; and (b) whether or not the provision contravened is a civil penalty provision. (7) This section does not apply to a decision (or a failure to make a decision or conduct for the purposes of making a decision) purportedly under this Act or the regulations that contravenes this Act or the regulations.

[4] See Annex to resolution VI.1 Working definitions, guidelines for describing and maintaining the ecological character of listed sites, and guidelines for operation of the Montreux Record. Made at the 6th Meeting of the Conference of the Contracting Parties to the Ramsar Convention, Brisbane, 19-27 March 1996.

A3.3: Site Plan



A3.4: Moot Observation Data Sheets

Moot Data Sheet A

A 3.4.1: Individual Participants Expectations

During the next 10 minutes please jot down your thoughts in response to the questions below. Use points if you would prefer.

1. What is the extent to which a statute can adequately define a farmer's environmental duty of care, for legal purposes? (Circle the most appropriate answer)

Adequately Almost adequate Uncertain Inadequate Totally inadequate

What are your reasons for this choice?

_____

_____

_____

_____

_____

_____

_____

_____

2. What matters in addition to statutory wording are relevant to providing a duty of care with meaning for natural resource management by farmers? (Write your suggestions in the spaces below)

(i)_____

_____

_____

_____

_____

(ii)_____

_____

_____

_____

_____

(iii)_____

_____

_____

_____

_____

(iv)_____

_____

_____

_____

_____

3. What is your response to the following propositions about a duty of care?

(i) That it is a process rather than a formulation

_____

_____

_____

_____

_____

(ii) That evidence of farm practice is important

_____

_____

_____

_____

_____

(iii) That it provides a collective obligation for farmers to be accountable for public good performance, not an individual obligation

_____

_____

_____

_____

_____

(iv) That it provides a tool to determine compensation claims against the government for reducing farmer's access to private resources

_____

_____

_____

_____

_____

4. What drafting or design innovations would improve the utility of statutory duty of care?

_____

_____

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_____

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A3.4.2: Moot Observation Questions for Skilled Observers (1)

Set out below is a number of ways in which "Duty of Care" is used in the literature. Our aim in this activity is for you to observe how often these different uses occur in the moot court.[447]

We would like you to note the arguments used by the advocates, the number of times that each of the duty types appears and a total for each use. (for the tally, you may like to use tally marks, but please add a number so that we can accurately interpret your count).

Version of duty used in argument	Nature of the Argument used	Tally
(i) A flexible process for determining general responsibility of all farmers		
(ii) Specific rules of practice for the operation of the farm		
(iii) Method for handling disputes between citizens		
(iv) A method for obtaining compensation from government		
(v) A way oaf ensuring accountability for environmental and public good performance		
(vi) A safeguard of private resource use by farmers		
(vii) A statutory term that creates clear legal obligations		
(viii) A common law duty of care that gives a process for resolving disputes		
(ix) A tool used to frame political rhetoric about farming and natural resource issues		
(x) A legal concept with quite specific content		
(xi) A general duty of all natural resource users		
(xii) A basis for the specific evaluation of individual farmer's performance		
(xiii) Any other version of how the term is used (please specify below or in the box.		

447 The table of versions has been resized for presentation in this appendix. The data sheet provided to observers was A4 size and laid out in landscape to provide plenty of room for notes.

A3.4.3: Moot Observation Questions for Skilled Observers (2)

The aim of this activity is for observers to note the line of argument that is used in the case, in the form of the propositions put forward, and the evidence that is used to support them. You are not required to record verbatim, but only to capture the essence of the propositions and the type of evidence adduced.[448]

Propositions from ABT	Evidence Used
(i)	
(ii)	
(iii)	
(iv)	
(v)	
(vi)	
Propositions from Hull	
(i)	
(ii)	
(iii)	
(iv)	
(v)	
(vi)	
Propositions from WWAGL	Evidence Used
(i)	
(ii)	
(iii)	
(iv)	
(v)	
Propositions form Hull	
(i)	
(ii)	
(iii)	
(iv)	
(v)	

[448] The table of propositions and evidence has been resized for presentation in this appendix. The data sheet provided to observers was A4 size and laid out in landscape over two pages to provide plenty of room for notes.

A3.4.4: Moot Observation Questions for General Observers

1. Please keep a tally of each time the different versions of a duty of care are mentioned and provide a total.

Type of duty	Tally	Total
(i) A flexible process for determining general responsibility		
(ii) Specific rules of practice for farming		
(iii) Method for handling dispute between individuals		
(iv) Method for obtaining compensation from government		
(v) Increased accountability for environmental and public good performance		
(vi) Safeguard of private resource use against government		
(vii) A statutory expresssion, with specific legislative meaning		
(viii) A common law duty of care, providing a process of resolution of disputes and claims		
(ix) A tool used to frame political rhetoric about farming and the environment		
(x) A legal concept with quite specific content		
(xi) A general duty of all natural resource users, without specific content		
(xii) A specific means of evaluation of individual performance		

Type of duty	Tally	Total
(xiii) Other version (please note)		

2. Please provide your response to the following questions by circling the most appropriate answer

(i) To what extent do you think that the statutory duty of care used in this case clearly defined (in its own terms) farmers' responsibility for natural resource management?

Very clearly Clear Uncertain Unclear Very unclear

(ii) To what extent were other interpretations of a duty of care needed to provide greater clarity about what the statutory expression meant?

Many others used Some others used No others used

(iii) How effective do you think a statutory duty of care is likely to be, in its own terms, in more cost-effectively addressing conflicts over sustainable natural resource management by farmers?

Very effective Mildly effective Uncertain Not very effective Ineffective

3. What suggestions do you have for each of the following

(i) How would you improve the wording of a duty of care in legislation for natural resource management by farmers?

_____

_____

_____

_____

_____

(ii) How would you improve the practical effectiveness of a duty of care for its use in conflict about farmers' natural resource management?

_____

_____

_____

_____

_____

(iii) What other issues are important in defining responsible natural resource management by farmers?

_____

_____

_____

_____

_____

4. Please answer the following questions about your experience

(i) What is your technical background? (e.g. law (type), engineering, natural resources, agriculture)_____

(ii) What do you consider your level of experience in natural resource management disputes to be?

Novice ❑

Experienced ❑

Very experienced ❑

A3.4.5: Individual Assessment

During the next 10 minutes please jot down your thoughts in response to the questions below and over the page. Use points if you would prefer.

(i) What uncertainties do you still have about the meaning or effectiveness of a duty of care for managing conflicts about natural resource management?

(ii) What variations of meaning in the expression of a duty of care appear to exist from this moot?

(iii) What type of evidence would be useful for minimising the complexities involved in using a duty of care for natural resource management by farmers?

(iv) What sort of guidelines and training would be useful for courts and lawyers for maximising the effectiveness of a duty of care as a regulatory tool?

A3.4.6: Focus Group

If you really had to make duty of care work in this new application what would you do?

The group will be facilitated by Paul Martin. The end point for the focus group is to try and define what is needed in practice to make a statutory duty of care work for farmers' natural resource management? In practice this requires answers to the following questions;

(i) What forms of regulatory drafting (wording) are needed to create an efficient duty of care?

(ii) What are the types of evidence which are likely to be needed in a court seeking to apply a statutory duty of care?

(iii) What are the remedies that ought to be available for breaches of this duty?

(iv) What impediments exist to making a statutory duty a workable instrument for more efficiently regulating farmers' natural resource management?