Department of
Sustainability and
Environment

LAND STEWARDSHIP

DUTY OF CARE:

An Instrument for Increasing the Effectiveness of Catchment Management

action Salinity & Water AUSTRALIA

Victorian
Catchment
Management
Council

Victoria
The Place To Be

Land Stewardship
A Victorian Catchment Management Council Project in collaboration with Catchment and Water Services Division (Department of Sustainability and Environment).

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Photographer: Willem van Aken

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about this paper

This Information Paper has been commissioned by the Victorian Catchment Management Council (VCMC) and the Department of Sustainability and Environment (DSE) as part of a Land Stewardship project funded by the National Action Plan for Salinity and Water Quality (NAP). It has been developed to feed into the Land Stewardship project by challenging current thinking and presenting new ideas. The need for an information paper to address the role of duty of care was highlighted in a paper entitled: 'Ecosystem Services through Land Stewardship Practices: Issues and Options'. That paper was developed in consultation with a range of stakeholders.

As part of the Land Stewardship project, this document forms part of a set of papers that contribute to discussion and debate underpinning the preparation of Land Stewardship policy and program proposals. This paper focuses on opportunities to define environmental duty of care and use of this instrument to increase the effectiveness of catchment management. The other papers focus on issues associated with:

- Ecosystem Services through Land Stewardship Practices (an Issues and Options Paper);
- Innovative investment vehicles for the delivery of grants and payments for ecosystem and other non-market services
- The use of environmental management systems and voluntary environmental management agreements;
- Opportunities to more effectively engage the private sector in the delivery of public goods;
- Social relationships to propositions for sustainable futures for the rural landscape.

This options paper aims to help catchment managers increase the effectiveness of financial investments being made by government and community. It is focused on the opportunities to define environmental duty of care and use of this instrument to increase the effectiveness of catchment management.

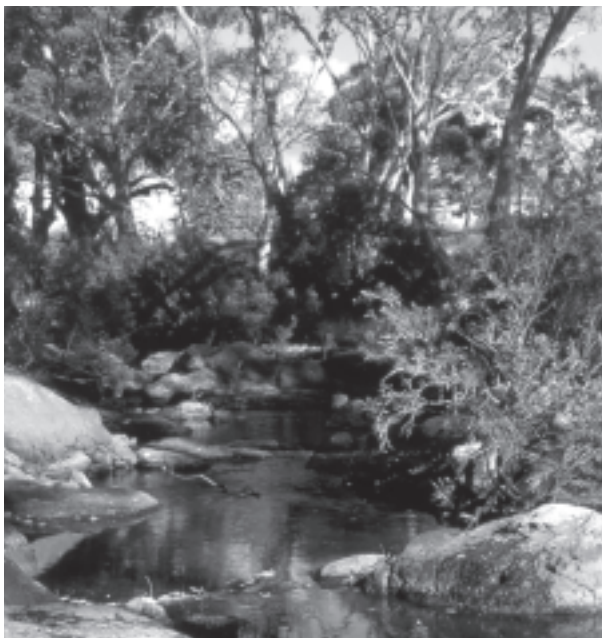
An environmental duty of care requires duty holders and responsible persons to take all reasonable and practical steps to prevent harm arising from their activities.
The baseline principle is to prevent harm to market and non-market values embodied in land and water resources, and to encourage ongoing environmental improvement.
The key objective of doing so is to internalise externalities in an economically efficient manner.

The main advantage of using environmental duty of care over conventional regulatory approaches is that it is outcome focused. By freeing up the regulator from directly determining standards, the environmental duty of care goes further by shifting responsibility and onus to the duty holders for deciding how to meet its duty.
As a result it offers one of the most efficient ways of defining the role that landholders play in providing public benefits. The challenge for catchment managers is to define what the minimum duty is and how to guide, encourage and speed change.

Normally, duty of care instruments will be used as one of a suite of instruments to influence land and water use in a region. One of the main roles for this instrument is to indicate the nature of those actions that landholders should be paid to deliver, those where transitional assistance should be offered and those which should be part of the normal costs of production.

In this paper, seven policy principles are proposed for the application of environmental duty of care in Victoria.

It is stressed that an environmental duty of care can be used as an instrument to constrain the pursuit of individual interests that may potentially cause harm to the environment. The purpose of doing so is to maximise the opportunity to realise socially expected public interests and community accepted values. Emphasis is placed on the duty of care being dynamic and being part of a policy mix that leads to environmental improvement over time.



1 : definition

Duty of care is a well-established legal concept that takes a form different from conventional regulatory instruments. A typical regulation prevents an action from being taken or, alternatively, prescribes a way that an action must be taken. If the outcome is unacceptable to society then the onus is on the regulator to change the regulation. Duty of care reverses this onus and, typically requires a person to ensure that a stated outcome is achieved. Typical duty of care legislation requires all persons to take *all reasonable and practical steps to prevent harm* arising from their activities.

Duty of care instruments do not specify in detail the requirements of the responsible person, but operate on the basis of what can be reasonably expected. They shift responsibility to the duty holders and responsible persons (Binning and Young, 1997). While complying with the duty of care is mandatory, duty holders can choose how they comply. This flexibility makes the compliance costs potentially lower than those under a regulatory regime based on traditional 'command and control' methods. More efficient outcomes result.

1.1 ENVIRONMENTAL DUTY OF CARE

Historically, the common law of UK and Australia has no concept of sustainable resource management because the law has been built upon the foundation of protection of private property (Bates, 2002). The concept of environmental duty of care was originally developed as part of the common law of the UK and has always applied to obligations of one person to another. Application of duty of care to environmental issues is relatively new.

The first mention that we can find of an explicit description of an environmental duty of care is in the UK where it has been used in relation to waste management since 1990 (United Kingdom, 1990). In Australia, duty of care as an environmental management instrument was first proposed by Binning and Young (1997) and then developed in an Industry Commission report. The Industry Commission (now the Productivity Commission, 1998, p. 134) has proposed that an environmental duty of care be defined in legislation to "require everyone who influences the management of the risk to the environment to take all 'reasonable and practical' steps to prevent harm to the environment that could have been reasonably foreseen."

To discover what is reasonable, administrators and courts would be expected to look to catchment management plans and codes of practice. The Industry Commission emphasises that protection of the environment is a continuous legal and social responsibility.

The baseline principle of an environmental duty of care is to prevent harm to market and non-market values embodied in land and water resources, to encourage ongoing environmental improvement (Binning and Young, 1997). The aim of proposing an environmental duty of care is to "internalise externalities but only to the extent that it is economically efficient to do so" (Industry Commission, 1998). The obligation is only to do what is "reasonable." This could, however, be interpreted as an obligation on a land manager to "remain current".

Other key background papers on this concept include those by Gardner (1998) and Bates (2001). Written by lawyers these papers describe the legal precedents associated with the concept and its application to the management of environmental issues. Recent policy papers include those by Binning (2002) and Crosthwaite (2001). The issues have been publicly aired through a recent parliamentary inquiry (SCEH 2001).

The most recent example we can find of use of this instrument is in the South Australia's River Murray Act, which proposes a specific duty of care towards the River. As summarised in more detail in Box 1, the River Murray Act 2002 that is currently being considered by the South Australian Parliament states that "A person must take all reasonable measures to prevent or minimise any harm to the River Murray through his or her actions or activities" (s.22). 'Harm' is defined to include a risk of harm and future harm. The harm need not necessarily be permanent or tenuous. Regulations may define specific aspects of what is meant by 'harm'. In addition, it is important to note that the onus is on persons to act not on the Minister or delegates to ensure compliance with the duty of care.

Environmental duty of care offers one of the most efficient ways of defining the role that landholders play in providing public benefits. This is because the duty defines the point where the 'polluter pays principle' ends and the 'beneficiary pays principle' begins. The landholder pays if quality of management falls below the socially desired level; otherwise society pays if it wishes to force adoption of practices necessary to produce benefits above the minimum (Bromley and Hodge, 1990).

EXTRACTS FROM THE RIVER MURRAY BILL 2002 THAT, AS OF 9 APRIL 2003, HAD BEEN PASSED THE LEGISLATIVE ASSEMBLY AND REFERRED TO THE LEGISLATIVE COUNCIL FOR CONSIDERATION.

9. (1) The functions of the Minister under this Act are— ...

(m) to undertake the enforcement of this Act, especially in relation to the general duty of care; and ...

22. (1) A person must take all reasonable measures to prevent or minimise any harm to the River Murray through his or her actions or activities.

(2) For the purposes of subsection (1)—

(a) harm includes—

(i) a risk of harm, and future harm; and

(ii) anything declared by regulation to be harm to the River Murray; and

(b) harm need not be permanent but must be more than transient or tenuous in nature; and

(c) in determining what measures are required to be taken, regard must be had, amongst other things, to

(i) the nature of the harm; and

(ii) the sensitivity of the environment that may be affected and the potential impact of the harm environmentally, socially and economically; and

(iii) the practicality and financial implications of any alternative action, and the current state of technical and scientific knowledge; and

(iv) any degrees of risk that may be involved; and

(v) the significance of the River Murray to the State and to the environment and economy of the State; and

(vi) insofar as is reasonably practicable and relevant, any assessment of potential harm to the River Murray as a result of the relevant action or activity undertaken before a statutory authorisation (if any) was granted under a related operational Act, and the extent to which any such harm was intended to be prevented or minimised through the attachment of conditions to a statutory authorisation (if any) under a related operational Act.

(3) A person will be taken not to be in breach of subsection (1) if the person—

(a) is a public authority exercising, performing or discharging a power, function or duty under this or another Act; or

(b) is acting in circumstances prescribed by the regulations.

(4) A person who breaches the duty created by subsection (1) is not, on account of the breach alone, guilty of an offence but —

(a) compliance with the duty may be enforced by the issuing of a protection order under Part 8; and

(b) a reparation order or reparation authorisation may be issued under Part 8 in respect of the breach of the duty.

2: legal concepts and risks

A duty of care to the environment may exist in common law and /or statute law. However, lack of clear definition of environmental duty of care may result in judicial interpretation along the lines of current common law thinking.

2.1 COMMON LAW ENVIRONMENTAL DUTY OF CARE

The common law concept of environmental duty of care continues to evolve over time. Environmental duty of care is based on the common law tort of negligence, arising where "the act of a person results in harm to either another person, or the property of another person. An environmental duty of care is a legal obligation to avoid causing such harm" (Keogh, 2001). Conceptually, under common law, duty of care applies to the actions of one person that causes harm to the interests of another person or to property. Legal action can be taken only when such harm has been caused and it is believed that a person has behaved irresponsibly. In other words, failure to comply with the general environmental duty does not, by itself, give rise to civil liability, but compliance may be enforced via the issue of an environmental protection order, or via an application to a court for a civil remedy to restrain breaches (or anticipated breaches) of the legislation (Bates, 2002).

When extended to the environment, the same concepts apply unless legislation states otherwise. A major problem of the common law is that it has recognised an environmental duty of care may be owed to people or property, but not to the environment *per se* (Bates, 1999). By defining the duty as one owed to individuals, the focus is on the financial consequences of breaching the duty, rather than encouraging individuals to consider their impacts on the environment. In addition, common law does not restrain the degradation of one's own land and natural resource base unless harm accrues to another person or to property in which the landholder owes an environmental duty of care. Failure to exercise this common law duty would be negligent and could imply civil liability.

In summary, reliance on common law notions of environmental duty of care is fraught with conceptual problems that, when tested, may prove to be inadequate. Thus, it is advisable, to underpin use of environmental duty of care instruments for natural resource and environmental management with legislation.

2.2 STATUTORY ENVIRONMENTAL DUTY OF CARE

Occupational health and safety statutes are a well-known example of codifying duty of care in legislation though its focus is on people. Under common law, duties of care have been owed to a limited group of people. Under statutory law, it may be owed widely to the community and conceptually to the environment itself. However, it may be difficult to enforce a broad-based environmental obligation where individuals are clearly not the objects of protection. The Victorian Catchment and *Land Protection Act* 1994 is said to embrace the concept of duty of care in relation to management of off-site effects, soil, water, weeds and pest animals (Industry Commission 1998). However, the duty of care is not explicit. There is now a small but increasing number of examples of environmental duty of care being expressed in legislation explicitly. Examples include:

- s.34 of the Environmental Protection Act 1990 (United Kingdom); and
- s.9 of the River Murray Act 2002 (South Australia).

Pragmatically, the approach taken in law has been to define the concept in legislation and then leave those responsible for administering natural resources, and ultimately the courts, to decide what is "reasonable."

In doing this reference can be made to any information deemed relevant. In particular, one would expect reference to catchment plans, voluntary codes of practice, performance standards, and recognised environmental management systems (recognised at either international or local level) (Anderson et al., 2001; Mech and Young, 2001). These mechanisms offer cost-effective ways to rationalise application of the concept.

The main advantage of using environmental duty of care over conventional regulatory approaches is that it is outcome focused. As a result it can be used, as a dynamically efficient mechanism, to deal with complex heterogenous environments where resort to a market-based instrument and/or regulations would be too expensive.

As well as freeing up the regulator from directly determining standards, duty of care goes further by shifting responsibility and onus to the duty holders for deciding how to meet the standards.

To achieve that goal, it will require positive management on the part of the landholder, not merely the avoidance of actions that could cause harm. To a large extent, the positive obligations of management and protection would be set out in a code of practice for the particular locality.

Importantly, the notion of reasonableness and fairness that often is associated with definitions of environmental duty of care means that the instrument is much easier to enforce if the definition has the support of the majority. As a result, this opens up a new and important role for catchment management plans, especially statutory plans that have legal standing.

Duties of care that could be set out in legislation include duties not to harm

- The interests of other people living in a catchment[1];
- The health of a river;
- Groundwater quality; and
- The biodiversity qualities of native vegetation

Table 1 summarises the key differences between common law and statutory approaches to environmental duty of care.

1 For more information on this concept see the discussion of a catchment care principle developed by Steve Hatfield Dodds in the Wentworth Group report that proposes a new model for landscape conservation in NSW (Wentworth Group, 2003).

Table 1

COMPARISON OF STATUTORY AND COMMON-LAW CONCEPTS OF ENVIRONMENTAL DUTY OF CARE

	*COMMON LAW DUTY OF CARE**	*STATUTORY DUTY OF CARE*
Conceptual Focus	Preventative	Constructive
Focus of Concern	Private interests	Public interests including those of future generations
Instrument Target	People and property	Environment per se (e.g., occupational health and safety, but still focus on people)
Time when Action can be Taken	Action possible only after the event to seek compensation for harm caused	Action to stop the risk of possible harm occurring is possible. Thus the standard can be higher than that attainable under common law
Legislative Focus	What you are liable for	What must be done to prevent damage

* In common law actions can only be taken by a person against another who has caused harm. There is no common law duty of care to the environment only not to harm the interests of others.

2.3
LIMITS AND RISKS

The most serious problem, limit or risk associated with environmental duty of care is that of enforcement. Centuries of social tradition have fuelled the assumption that private landholders have no public duties to manage their land for long term values and no obligations of guardianship. In this regard, the common law duty of care may focus on the potential financial, rather than environmental, impacts of the breach and thus does little to foster the concept that a duty may be owed to the environment *per se* (Bates, 2002). The common law test of 'reasonable and practical' may lead landholders to do the minimum and not engage in the latest technological advances (SCEH, 2001). In addition, governments have often shown a lack of will to enforce laws governing natural resource management. This risk of failure is often reduced by defining a duty and then providing for an enforcement process involving progressive introduction of threats, shaming, orders, actions and ultimately penalties. Another strategy used is to make independent bodies totally accountable for delivery of specified resource and environmental outcomes.

As foreshadowed in the River Murray Act, under environmental duty of care legislation threat of a regulatory action could be made against landholders who are thought to be causing harm to the environment or natural resource productivity or valuable ecosystem services. If this threat failed, regulatory action could then be taken. If challenged in the courts, it would then be necessary to show that it is reasonable and fair for a landholder to be aware of the duty and to comply. If a landholder is found in breach the codes, a land management notice/order can be issued requiring a landholder to do or not to do a specific activity. Non-compliance with the order is an offence against which action can be taken. It should be recognised, however, that there is a gap between what a landholder is required to do by a statutory legal obligation and what is expected by the ecologically sustainable land management.

3: relationship between environmental duty of care and other instruments

There are many ways to classify the suite of instruments that can be used to guide natural resource use by land and water users. Together with relevant laws and conventions, these instruments combine to define landholder entitlements and obligations (see Figure 1). Grants, voluntary tenders and other instruments are then used to shift behaviour and influence land use.

Figure 1
A classification of landholder entitlements, duties and regulations

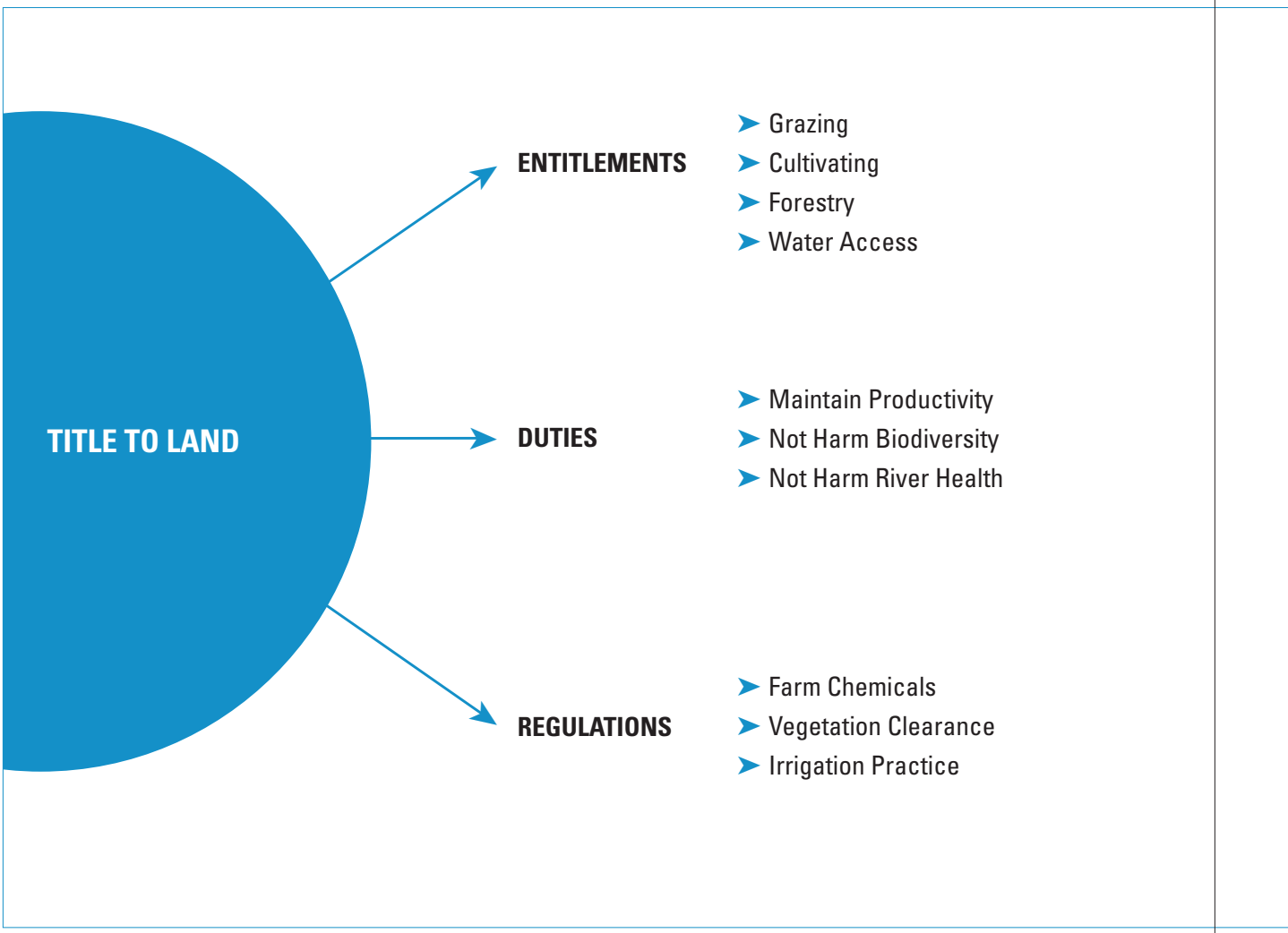


Table 2

CLASSIFICATION OF INSTRUMENTS COMMONLY USED IN CATCHMENT MANAGEMENT

TYPE OF INSTRUMENT	*EXAMPLE*	*PRIME PURPOSE*
Motivational Instruments	Prize for best land manager	Encourage innovation and demonstration of opportunity to others
Information Instruments	Extension program involving field days and dissemination of brochures	Speed adoption of new practices and prevent adoption of counter-productive practices
Duty-based Instruments	Legislative requirement not to harm biodiversity values associated with remnant vegetation	Attain environmental outcomes most efficiently achieved, at least in part, by stating a high level goal rather stating what must be done
Financial Instruments	Market-based instruments used to select people offering to deliver services over and above those required of all landholders	Speed change and support work over and above that required
Property Right Instruments	Tradeable salinity offset	Ensure that regional environmental outcomes are maintained
Regulatory Instruments	Requirement to obtain permission to clear native vegetation	Stop actions known in most circumstances to not be in the public interest

Table 2 provides a classification that is expanded to include environmental duty of care instruments used in catchment management (Young et al. 1996).

In practice, all these instruments are mixed together in combinations that vary by landholders, across space and through time.

Collectively, all the instruments in Table 2 combine to define landholder entitlements, duties and obligations and thereby guide land use. Underpinning any package of instruments is the notion that there is a minimum standard expected of all landholders irrespective of their wealth and that this will be accepted by the community and courts as 'reasonable and fair' (Industry Commission, 1998). Both regulatory and duty of care instruments are used to define these minima as they change through time. The costs of meeting an environmental duty of care are "incorporated into, and seen as, normal costs of production" (Binning and Young, 1997, p. 20). In general governments should not provide financial assistance to resource users to meet that duty; the role of transitional and forward-looking payments are outlined later in the paper. Landholders who do not meet these minima are expected to change practice. To put it bluntly, those who are unable to cope with these social expectations are expected to find an alternative way to earn a living.

Some fuzziness is necessary. As production opportunities change so do impacts on the environment and interpretations of which actions are consistent with one's duty of care. The challenge for catchment managers is to determine the point where the responsibility for private investment in public good conservation activities may cease and public responsibility for investment should begin, and to define what the minimum is and how to guide, encourage and speed change.

3.1 RISKS ASSOCIATED WITH ECOSYSTEM SERVICE PAYMENTS

Paying for ecosystem services has become an increasingly popular idea. However, there are considerable risks associated with the use of ecosystem service payments and other mechanisms. Without very careful design, there is a risk that these mechanisms could result in significant misallocation of resources. In particular, it is possible for payment mechanisms:

- to discourage innovation, change and structural adjustment (Crosthwaite, 2001) as economists showed with agricultural subsidies;
- to pay people to undertake things that they were already intending to do (Young, 1995; Colman, 1994);

BUSH TENDER AND ENVIRONMENTAL DUTY OF CARE IN VICTORIA

Bush Tender is a trial project in Victoria that offers landholders the opportunity to receive payment for the provision of management services that improve the quality or extent of their native vegetation. Landholders tender for the amount of payment they require for their management services during the trial period. It favours selection of landholders who have threatened vegetation types and whose management activities will deliver the most biodiversity gain.

A first trial was conducted in two areas of northern Victoria in 2001/02 and a second trial was conducted in parts of Gippsland during 2002/03.

Recognising many of the issues raised in this paper, Bush Tender pays landholders for services that improve the quality and quantity of native vegetation on their property. Habitat services are defined as landholder commitments that are 'beyond current obligations'.

"Habitat services may include active management beyond current obligations (e.g., weed control, pest control, revegetation) and/or foregoing existing use rights (e.g., stock grazing, removal of fallen timber for personal use, etc.) to either maintain or improve the quality of a patch of native vegetation. Bush Tender uses the 'habitat hectares' method (Parkes et al. 2003) to determine current and predicted quality outcomes."

Whether or not a service is 'beyond current obligations' is defined by reference to current legislation and policy guidelines.

Source:
James Todd, Department of Sustainability and Environment, 2003.

- to erode common notions of environmental responsibility and create situations where landholders have an implicit right to hold the environment and other landholders to ransom and argue that unless paid they have a right to destroy[2];
- to build bureaucracies and administrative processes that have very high transaction costs, especially if the payment schemes have to be run in perpetuity;
- to discourage private investment in the environment by creating the impression that care of the environment and the interests of other people is the duty of governments not that of the individuals whose actions collectively determine the interests of future people (Young, 1995).

Many of these risks are understood by catchment managers and are the focus of trials that are currently underway. As summarised in Box 2, for example, the Bush Tender process is putting considerable effort into ensuring that people are not paid to meet minimum obligations.

Nevertheless, these risks remain particularly where the process is not underpinned by one that seeks simultaneously to redefine catchment wide duties expected of landholders.

Interpreting entitlements and obligations, and anticipating how they will unfold over time is a helpful way to approach the risks associated with paying for ecosystem services. Key concepts discussed above are illustrated in Figure 2. Duty of care is defined loosely in a manner that sees anything within a range of outcomes as the acceptable minimum. Penalties and discouragement are used to bring recalcitrant landholders up to the minimum. Reward and encouragement mechanisms are used to demonstrate and communicate that higher levels of performance are possible without the incurrence of excessive cost. They also speed up acceptance of new, emerging definitions of the minimum that will be required in the future. The challenge is to identify the role for payments for ecosystem services in signalling the direction of change. In many cases, the main role is to speed acceptance of the need for, and adoption of, more sustainable practices. If the framework set out in Figure 2 is acceptable, then catchment plans should specify the minimum that is expected and how this minimum will change over a period of time.

2 This is often referred in environmental policy literature as "backsliding."

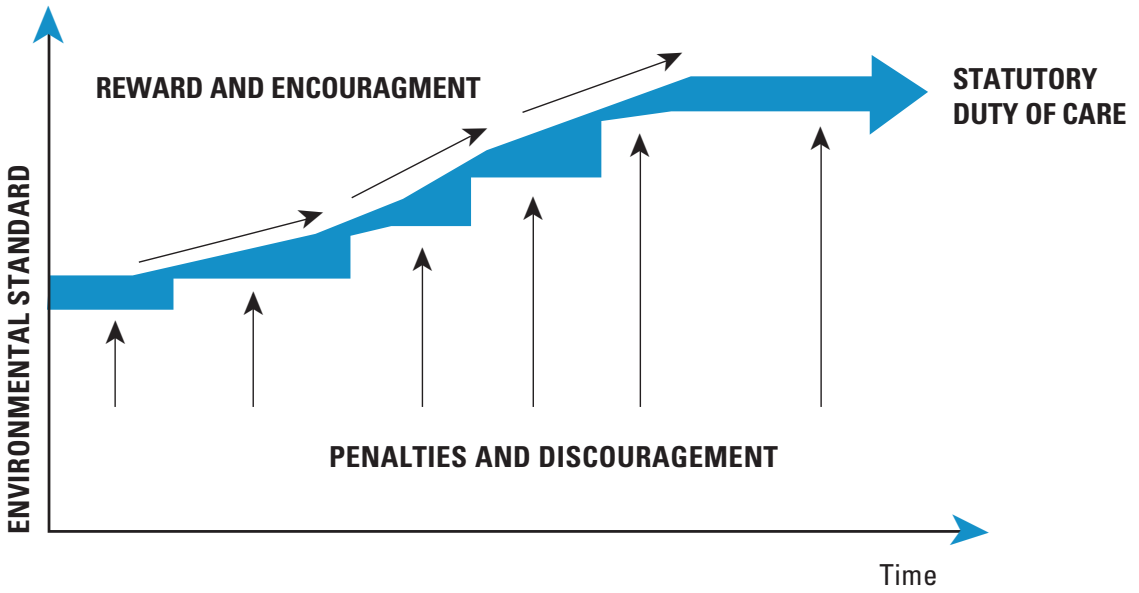


Figure 2
Relationships between definition of duties of care through time and the use of penalties and incentive payments to speed adjustment and ensure that duties are honoured as they evolve

3.2 WHEN TO PAY FOR ECOSYSTEM SERVICES

The dymamic framework just outlined can provide a 'game plan' for devising any ecosystem services payment scheme that minimises the risks with such payments. Financial assistance would normally only be available to landholders for environmentally necessary activities that go beyond the landholders' duty of care. In the long run, it will often be more efficient to make delivery of these services part of the normal costs and obligations associated with land ownership.

In the long run, payments should be limited to the reimbursement of the cost of services provided to society that

- are unique assets that might otherwise be lost (e.g. habitat of a threatened species);
- can not be captured in the market; and
- are not expected of the majority of landholders with whom they compete.

It is useful to recognise that there is a tension between making payments for services over and above the duty of care and the risks associated with such payments. Careful design can minimise the risks associated with making on-going payments to landholders.

Operationally, duty of care means that in the long run landholders should be expected to meet the costs of sustainable land management as part of the normal suite of production costs they face. The interplay of these factors with market conditions should be expected to determine how opportunities to earn income and the market value of land continuously changes through time.

In the short run, this is most efficiently achieved in most cases via the use of a conservation covenant or management agreement that requires superior environmental management and that permanently changes future development opportunities. As with private business arrangements, public investment in land that goes beyond environmental duty of care requires use of mechanisms that limit future opportunity to undo the value of the investment made.

Payments might also be required in remedying historical legacies. The duty of care is not likely to impose obligations for repairing land management problems that are the legacy of history. However, there may be an obligation to take reasonable action to prevent them from getting worse (e.g. erosion), or from spreading to other land (e.g. weeds, rabbits).

Repairing such problems could be regarded as restoration of ecosystem services – here it is a primarily question of value for money and being careful not to put good money after bad (Pannell, 2001). Efficiency considerations dictate that priority should go where the most gain in ecosystem services is achieved for the given budget. Some of this gain will be measurable in terms of increased agricultural productivity and other metrics (e.g. the habitat hectare method for assessing quality changes in remnant vegetation (Parkes et al. 2003)). Metrics need to be developed to facilitate effective targeting to capture other gains.

Payments for ecosystem services by governments should be distinguished from creating markets for ecosystem services. Bush Tender attempts to create a quasi-market only, in which there is just one buyer and a once-only transaction. Water entitlement trading more closely approximates a competitive market build around a scarce resource, with opportunities to repeat transactions and to learn. Examples of where competitive markets might be constructed around ecosystem services include pollination, eco-tourism, harvesting of native species such as grass seed and specialty timber. Provided the market is structured to ensure public goals are met, questions of obligation and entitlement do not arise when dollars change hands.

4: application opportunities for victoria[3]

Three opportunities stand out for catchment management in Victoria. The first is to provide high-level clarity for landholders and managers across the State by defining environmental duty of care. The second is to operationalise these definitions by defining them in more detail in catchment and other (preferably statutory) plans. The third is to encourage the development of regional and local plans, codes of practice, environmental management systems and the like so that landholders can identify, at low cost, what is currently defined as being reasonable.

At a State level, environmental duty of care could be defined in two ways. First, as a duty of all landholders to ensure that land under their control is used only in a manner that causes no harm to the environment and no harm to the resource base. Alternatively, a more specific approach could be taken in order to provide a clearer statement of intent for example by imposing on all landholders a duty not to undertake, or continue, actions that

1. Harm the interests of other people living in the catchment – a duty to the catchment community;
2. Diminish the productive potential of other land or water, including likely future productivity – a duty to the economy;
3. Diminish the contribution that remnants of native vegetation make to agreed regional, national and international biodiversity objectives – a duty to help maintain biodiversity;
4. Diminish the quality of the water supply, recreation, ecological and other services provided by associated with rivers, streams, wetlands, waterways and groundwater bodies – a duty not to pollute water.

3 The principles set out in this section are adapted significantly from a short paper presented by Carl Binning to the NSW Farmers Association. They are entirely consistent with concepts set out in Binning and Young (1997) and Young et al. (1996).

If this vision is accepted then a number of policy principles follow.

PRINCIPLE 1 – Employ policy processes and mechanisms that allow for adaptation as market conditions and social expectations change:

Entitlements, obligations, duties and regulations should be defined in a manner that allows them to be adapted to meet the requirements of sustainable natural resource management as scientific understanding and/or community expectations change. Governments should clearly articulate the processes through which entitlements and obligations will be reviewed and commit to providing forward-looking assistance in times of significant transition.

PRINCIPLE 2 – In the long run, do not subsidise sustainable resource use:

Governments should not provide ongoing subsidies for landholders to implement sustainable natural resource management practices or provide ecosystem services. In these situations, the role of government is in education, research and advice to support and raise landholders' awareness of their duty of care. Transitional assistance payments and other programs should be offered only when underpinned by a clear commitment to permanently change land-use practice and only to speed transition and acceptance of the new situation. Catchment plans should be used to define what is sustainable and signal how these minimum standards will change through time.

PRINCIPLE 3 – Manage transitions by signalling and securing permanent changes to entitlements, obligations and duties:

Where changes in environmental duty of care are required to secure natural resource management outcomes, these changes should be achieved through unambiguous and permanent changes in what is expected of landholders. Reduced standards may have to be accepted as a temporary transition to higher best practice standards.

PRINCIPLE 4 – Use transitional assistance policies to speed adjustment and acceptance of new obligations:

Where the definition of "environmental duty of care" is shifted to a new threshold or where significant land-use change is required, incentive payments can be used to speed transition and maintain community support. Such payments should be of a one-off nature and secure permanent changes in property rights associated with a land title. Sunset clauses, which limit eligibility to those that apply within a defined period of time, will speed transition.

PRINCIPLE 5 – Reward best practice and continuous improvement:

A danger with the introduction of environmental duty of care is that when a standard is set lower than that already being achieved by some individuals, it could reduce the incentive to continue to demonstrate high standards of environmental management. Therefore in periods of transition, landholders that have demonstrated a commitment to best practice through voluntary action should be acknowledged and rewarded through one-off incentives to continue to improve management practices. As the Wentworth Group (2002, p. 13) points out: "We need to provide financial support to landholders who supply environmental services to the rest of the community above agreed definitions of duty of care... Whilst we expect farmers to accept a duty of care to protect the environment, it is not fair to expect them to bear all of the costs when the benefits of their actions accrue to others". Financial support could be in the form of adjustment assistance based on an analysis of whole land use options and future proposals for land use, rather than as compensation.

PRINCIPLE 6 – Payments should be forward looking:

In general, transition payments should be positive and seek only to help reimburse the costs of changing practice to meet new requirements for sustainable natural resource management. Wherever possible, payments based on foregone opportunities (opportunity cost) should be avoided as this contradicts the general principle of "environmental duty of care" whereby the duty holder pays for all normal costs of production.

PRINCIPLE 7 – Expect to pay in perpetuity for the supply of unique site-specific public conservation service beyond duties:

Ongoing payments that reimburse the costs of management can be justified only where it is directly in the community's interest to secure site-specific ongoing management where the work required exceeds the general "environmental duty of care" facing other landholders and the value of this work can not be recovered from the market. Such payments reimburse the incremental costs of providing benefits to society. That is, they pay people to do work which, if they did not do it, would be undertaken by government on behalf of future generations and society in general. Typically, these costs cannot be recovered from the market place (Binning and Young, 1997). The best way of organising such payments is canvassed elsewhere (see Stoneham *et al.*, 2000; Crosthwaite, 2003).

5: concluding remarks

In this paper, an environmental duty of care is proposed as an instrument to help constrain the pursuit of individual interests that may potentially cause harm to the environment. The purpose of doing so is to maximise the opportunity to realise socially expected public interests and community accepted values at least costs. The notion that a landholder has a duty of care for the environment per se provides the foundation for acceptable land stewardship. Emphasis is placed on the duty of care being dynamic and being part of a policy mix that leads to environmental improvement over time.

In addition, it needs to be observed that many catchment managers and landholders are wary of using legal terms that imply a sense of formal duty. Where this is the case, there is an opportunity to begin by using terms other than environmental duty of care. Environmental responsibility is one that has been suggested.

While other terms, like environmental responsibility can be used, we do not recommend this approach, as it may require the expensive and tortuous process of reinventing legal concepts which are already understood. Moreover, it needs to be understood that in law whether or not the word duty is used, if the concept is one that establishes a duty then it will be interpreted as a duty.

If the aim is to provide clarity as to what the minimum standard is, then it is counterproductive to fail to communicate this intent. It is better to call a 'spade' a 'spade'. A better way forward is to begin by defining, say, one environmental duty of care such as a duty to protect biodiversity and then once this duty is accepted, define another.

The environmental duty of care is more flexible and less prescriptive than many alternative approaches to protect the environment and manage natural resources. It has been developed as an efficient means of coping with profound uncertainties in managing complex natural resource systems like catchment management. As the real world continuously changes, the mechanisms used to operationalise interpretation of what is required should be repeatedly subjected to rigorous reconsideration. Once put in practice, catchment management plans and codes of practice become the main mechanisms used to define what is required of landholders and water users. The importance of using these plans to do this can not be emphasised too strongly. Failure to do so must be expected to result in the mis-allocation of public resources.

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your comments

The VCMC and the DSE want to hear your responses to some of the options explored and the questions raised in this document. Your ideas will become an important contribution to this project. Although a range of stakeholders have already been involved in the preparation of this paper, your support will assist in the move towards the deeper investigation of how these concepts could be applied in Victoria.

You may respond by email to the VCMC:

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