

A VCMC Case for Moving Ahead With NRM in Victoria

Abstract

Victoria's Catchment Management Framework is well placed to meet the Victorian Government's sustainability objectives of healthy and productive land and flourishing biodiversity in healthy ecosystems. Supported by Regional Catchment Strategies (RCS) which engage communities in action plans to address specific natural resources management issues, Catchment Management Authorities (CMAs) are required to use adaptive management to devise local solutions, integrated across many issues with tradeoffs appropriate to the local environment.

Using emerging concepts and new tools, CMAs can provide for a sustainable future with opportunities to move forward in difficult areas such as the protection and enhancement of native vegetation and weed management and address emerging issues such as soil health. To do this strategically and effectively we need:

- A statewide catchment strategy and investment plan
- A land management strategy
- Development of the ecosystem services paradigm
- Further development of the native vegetation framework
- A system to manage knowledge in a networked environment
- Monitoring, evaluation, reporting and learning to support the adaptive management process

Background

A Snapshot of Recent Statewide and Regional Activity in NRM

The past few decades have seen a tremendous response at the State and regional levels to emerging and evolving environmental pressures. Government agencies, industry and community groups have come together to tackle a range of issues such as land degradation, salinity, water quality decline, pest plant and animal invasion, loss of biodiversity, etc. in order to maintain our natural ecosystems.

Some of the more recent developments which have contributed to the State Government's objective of achieving sustainability in Victoria within the next generation include (VCMC, 2004a):

- The establishment of the Department of Sustainability and Environment (DSE)
- The adoption within DSE of an outcomes-based approach to program management and commencement of the development of the policy framework in which this can be applied to our natural capital
- Establishment of the \$360M Victorian Water Trust
- The development of the Government's policy paper *Securing Our Water Future Together*
- The release of the Victoria's Environmental Sustainability Framework *Our Environment Our Future*
- The completion of the Land Stewardship project, funded by the National Action Plan for Salinity and Water Quality
- Pilot projects in BushTender, CarbonTender and EcoTender
- The appointment of the Commissioner for Environmental Sustainability

- Exploration within the DSE Land Stewardship and Biodiversity Division of a Statewide Natural Resource Management Policy Framework and Statewide Natural Resource Management Investment Model
- Renewal of RCS for 9 of the 10 CMAs (to date)
- Development of the Regional Catchment Investment Planning process
- Development of Sustainability Covenants between the EPA and a number of public and private sector organisations
- Development of governance and sustainability reporting in the private sector and the Carbon Disclosure project
- Development and Funding of Our Rural Landscapes project, \$50M program to address sustainability of our agricultural industries.

We Need to do More

While we have clearly made significant advances towards protecting, sustaining and enhancing our natural capital through the implementation of these programs and initiatives, the alarming reality is that our management efforts are not keeping pace with the rate at which our natural resource assets are declining across the State.

The *Health of Our Catchments* (VCMC, 2002) provides clear evidence that 'our natural resources are under pressure, and in many cases, will not be passed on to the next generation in good condition'.

If we choose to ignore this evidence and continue to operate under current resourcing and management paradigms, we will be placing our environmental, economic and social resources at serious risk. We have a responsibility to act immediately to reverse these downward trends and shape a better future for all Victorians.

Why Act Now?

The time to act now and bring about a major change in the way we approach the management of our natural resources is opportune for a number of reasons.

- There is a growing appreciation that the earth is essentially a closed system and that, if we continue to consume our natural capital, we will cause irreversible damage to our life-supporting ecosystems.
- Climate change is now widely accepted as the most serious environmental problem on the global horizon. Evidence that this phenomenon will cause added pressure on our already stretched resources is already visible with the onset of global warming and extreme weather events such as drought, flooding, etc. This situation is predicted to worsen significantly within our lifetime (NRE, 2001).
- Farmers are experiencing difficulties with continuing dry conditions, drought and declining 'terms of trade'. This is resulting in a reduction in the number of farmers and investment in NRM. However, the participation of farmers in landcare and industry best management practice programs is very encouraging.
- Community awareness of environmental issues is growing and there is an opportunity to build on this momentum. One of Australia's leading environmental experts, Peter Cullen, believes that 'we are now in the midst of a community

transition from where creating wealth from agriculture was the dominant concern, to a view that the health of our landscape and rivers and estuaries, and the welfare of animals are becoming overriding concerns' (Cullen, 2005).

- New technology and knowledge acquired over the past decade has allowed the development of better institutions and tools to assist us with understanding, monitoring and managing our natural resources. eg. CMAs, Index of Stream Condition, Ecological Vegetation Classes, Habitat Hectares, Special Area Plans, BushTender, CarbonTender, EcoTender, better mapping, land literacy, etc. More sophisticated tools will continue to emerge as we build on our capacity and capability.

The time has come to be courageous and push the environmental reform agenda to a new level. There is a sense of urgency that the issues are getting greater and hence so is the management of these issues. We need to take advantage of these opportunities and truly start to engender a culture of sustainable development.

A Building Block...

To bring about this change, we will need to be proactive and work together in a coordinated and strategic way.

Fortunately, because of our efforts so far, we have put ourselves in an excellent position to move forward. For example, there are enormous opportunities to build on the activities and strong ethic of the Landcare movement and other community programs (VCMC, 2002). Where things are working well, we need to capitalise on our successes. By the same token, where things are not working well, it will be necessary to review and improve the current set of policy and program approaches.

The following section outlines a suite of proposed policy tools and approaches to land and water management that VCMC strongly believes will aid the implementation of sustainable behaviours within the community and ultimately help achieve an integrated solution to NRM in Victoria. We invite you to seriously consider our recommendations for a sustainable future for rural land across the State.

Implementation of Sustainable Practices Within the Community

A Partnership Approach

If we are to be successful in our efforts towards sustainability, it will be crucial for the community to get on board and take ownership of this issue. As the primary body responsible for the strategic planning of natural resource management at the catchment level, the CMAs will play a key role in working with the rural community to facilitate the delivery of sustainable practices. A major challenge will be further changing community attitudes and behaviours towards sustainability.

There will be a need to have strong institutional arrangements in place between key players involved in sustainable development including DSE, DPI, CMAs, EPA, water authorities, local government, etc. in order to meet environmental, economic and social objectives. For example, a specific issue that is common to both CMAs and local government is the protection of native vegetation so that biodiversity can be

maintained (DSE, 2005a). These two institutions will need to work closely together to ensure that biodiversity outcomes are maximised.

Statewide Catchment Management Strategy

Although we have come a long way since the establishment of the catchment management framework and community driven approach to land and water decision-making, we are yet to achieve the 'holy grail' of natural resources management – **integration** (VCMC, 2004a).

The concept of integrated catchment management first emerged in the 1980s and is an underlying principle of the catchment management framework in Victoria. It recognises the linkages between land, air, water and biodiversity and that the management of one element can impact both positively and negatively on the other (DSE, 2005a). It also acknowledges the importance of policies and programs across NRM being complementary to, and consistent with, one another. An integrated approach will be a necessary precursor to meeting the government's sustainability objectives.

In order to truly achieve this aspiration and shift the focus towards designing catchments for sustainability, the VCMC urgently encourages the development of a statewide catchment management strategy and accompanying investment plan, led by DSE, to optimise investment outcomes for the State.

VCMC considers the development of a statewide catchment management strategy to be critical to the implementation of sustainable practices. A strategy of this kind would sit below the Sustainability Framework and essentially act as an overarching link between RCS, as well as achieve integration across existing statewide issues-based frameworks (eg. water, biodiversity, climate change, etc.)

The VCMC's 2002 catchment condition report titled *The Health of Our Catchments* highlighted the need for an integrated natural resources management strategy and accompanying investment plan which would contain the following elements:

- A vision for the Victorian landscape in 2050
- A vision for the future of agriculture within that landscape
- Identification of opportunities for the State
- An outline of innovative public/private partnerships to achieve the strategy
- A knowledge management plan, to include research and development and monitoring, evaluation and performance review
- Adequate resources from the public and private sector

The strategy would build on the work already undertaken by DSE in exploring the concept of integrated natural resource management. It would be developed on an adaptive management basis and have a long-term outlook to allow the community to adapt and adopt new ideas and management paradigms.

A strategy of this kind would be a critical mechanism for providing coordinated delivery of actions contained within the Sustainability Framework.

Victorian Land Management Strategy

VCMC commends the Victorian government on its strong focus on water issues in recent times and the release of the comprehensive policy document *Securing Our Water Future Together* (DSE, 2004). This document sets out more than 80 proposals to reform the way we use and manage our water.

But while this issue has been high on the government's agenda and has taken us a long way towards achieving sustainable water use, a focus on land-related issues has been lacking.

The Health of Our Catchments 2002 (VCMC) reported that:

One clear area of significant future risk across all regions is soil management. The indicators outline only two regions with a soil management strategy and program. At a local level some good information on soils and soils processes exist. While some regions will pick up elements of soil management in other programs, the lack of emphasis generally across Victoria is of concern.

In recent times, there has been growing recognition of this significant gap in government policy. The Secretary of DSE recently commissioned an exercise to provide an overview of major issues on the horizon in DSE's portfolio by undertaking a multi-criteria analysis. Interestingly, 'land degradation' was rated in the top three issues identified by a key group of experts on natural resource management.

Currently there is no overarching policy in place to deliver a coordinated and comprehensive approach to landscape management across public and private land. With problems of salinity, soil acidification, soil structure decline, erosion, etc. on the rise, the time has come to lock in a vision for landscape sustainability and develop a landscape program for 2006/07 that addresses these critical issues.

A landscape program would need to pull together the large body of work that has already been undertaken both internally (eg. Native Vegetation Framework, Rural Land Stewardship, Second Generation Landcare, Integrated Natural Resource Management, BushTender, CarbonTender, EcoTender, etc.) and externally (eg. VFF Native Vegetation Strategy, Local Government Weed Management Report, etc).

VCMC supports the vision of the DSE Land Management Branch (DSE, 2005f) to develop a land management strategy which focuses on achieving the following integrated outcomes:

- Sustainable landscape systems
- Land use matching land capability
- Recovery of damaged land systems

A land management strategy would link existing issues-based strategies (eg. biodiversity, water, river health, public land, etc.) and contribute to achieving the land-related objectives within the Sustainability Framework namely 'healthy and productive land' and 'flourishing biodiversity in healthy ecosystems'. Furthermore, there would be much scope to build on and refine the interim targets identified within the Framework. A strategy of this kind would facilitate growth and

productivity by using resources more efficiently while minimising the impact on our natural resources.

Ecosystem Services

The VCMC vision for Victoria outlined in *The Health of Our Catchments* (2002) is based on the ecological footprint of Victorians being in balance with the natural capital that we can sustain over the long term. In order to achieve this vision, VCMC argues that radically different approaches to managing the land are required.

The concept of 'ecosystem services' provides a complete change in the way we view and manage the landscape. The DSE Rural Land Stewardship project defines ecosystem services as 'the services or the provision of goods, which generally come from natural areas, but can also result from sustainable management of land and water. These include the provision of clean air, water, biodiversity services and carbon sequestration' (DSE, 2003).

While many people enjoy the benefits of ecosystem services, it is essentially landholders that bear the cost of providing these services to the community. Given that ecosystem degradation and biodiversity decline has now reached critical levels, it is beyond the capacity and resources of farmers and government to continue tackling these issues alone. Where we expect farmers to provide ecosystem services that are above their duty of care, we should pay them to provide those services on behalf of the community (DSE, 2003).

Council supports the development of a market for ecosystem services whereby the broader community (eg. individuals, philanthropic, institutional and business investors) purchases a range of defined ecosystem products and services (VCMC, 2004b). Payment will assist farmers and other landholders to either continue providing ecosystem services, or make changes to their management, that will result in a move to more sustainable practices (DSE, 2003). Establishing a framework for ecosystem services would require defined property rights, caps and rules of trade.

Trading ecosystem services has already commenced on a pilot basis as part of the BushTender, CarbonTender and EcoTendor projects. In particular, the EcoTender trial aims for multiple outcomes including reduced dryland salinity, improved water quality, biodiversity and carbon sequestration while taking into account the impact on the quantity of water available. VCMC advocates an extension of similar market activity across the State with CMAs acting as brokers in the purchase of ecosystem services.

A suite of reports, which are an outcome of the joint VCMC/DSE NAP land stewardship project, are available on the VCMC website at www.vcmc.vic.gov.au. DSE is currently finalising a report to government on this project which explores draft policy concepts.

Native Vegetation/Whole Farm Planning

In response to alarming rates of clearing, native vegetation retention controls were introduced in 1989 and permanent statewide planning controls came into effect in 1991 (Planning Panels Victoria, 2005). The introduction of these controls without prior consultation inflamed opposition from the farming community and Councils

were also concerned by the administrative burden imposed and loss of decision-making control resulting from the changes.

Fifteen years down the track, the subject of native vegetation retention remains a contentious issue. In 2004, the Productivity Commission conducted an Inquiry on the *Impacts of Native Vegetation on Biodiversity Regulations*. The Inquiry concluded that:

“heavy reliance on regulating the clearance of native vegetation on private rural land, typically without compensating landholders, has imposed substantial costs on many landholders who have retained native vegetation on their properties. Nor does regulation appear to have been particularly effective in achieving environmental goals – in some situations, it seems to have been counter-productive.”

There is an opportunity to refine the current approach to native vegetation management set out in *Victoria's Native Vegetation Management – A Framework for Action* (DSE, 2002) and *Draft Operational Guidelines for Achieving Net Gain in Planning Decisions* (DSE, 2005d).

While government policy provides an excellent opportunity to protect important native vegetation when landuse is changing, it does little to protect and enhance biodiversity values on land that is subject to continuing management regimes.

VCMC believes there is great merit in moving towards an integrated whole-farm plan approach as an alternative way to manage native vegetation on private land. A whole farm plan would guide how native vegetation should be managed over the life of the plan, including protection, rehabilitation and clearance activities. It would provide a strategic, holistic and long-term outlook, thereby eliminating the need for ongoing consent from a planning authority. Council envisages that a plan of this kind would be developed by the landholder in consultation with the CMA, whose primary role would be to consider the plan in the context of the regional setting. DSE would have a role in providing expert opinion. A whole farm plan would ensure that native vegetation is managed responsibly at a property and catchment scale, and would link in with existing Environmental Management Systems (EMS). This approach is complementary to the VFF's vision for Farm Vegetation Management Plans as outlined in the *VFF Native Vegetation Strategy* (VFF, 2005).

But the potential role of whole farm plans does not end there. There is scope to build management activities for a whole range of natural resource issues into these plans including carbon, pest plant and animals, biodiversity, salinity, water quality, etc., identifying existing and potential ecosystem services. The benefit to the landholder would be a single tool that addresses a range of interconnected and complex issues, thereby providing a coordinated and holistic approach that is proactive rather than reactive.

VCMC considers integrated whole farm plans to be a major vehicle for achieving integrated natural resource management at the landscape scale. They also provide an opportunity for sale and purchase of ecosystem services as another form of production from healthy rural land.

Knowledge Generation, Synthesis and Exchange

Knowledge constitutes the difference between an informed and uninformed approach to decision-making. Gaps in knowledge brought about by lack of information, poor communication and sporadic processing of existing information are fundamental constraints to effective natural resource management (VCMC, 2002).

There are three key areas of knowledge. These are:

- Knowledge generation (developing new knowledge)
- Knowledge synthesis (compiling/interpreting knowledge)
- Knowledge exchange (using knowledge) across the State and beyond

Knowledge generation, synthesis and exchange are fundamental aspects of managing for the future sustainability of natural resources, particularly healthy ecosystems.

VCMC considers the development of a statewide knowledge management framework to be critical to servicing an ecosystem services approach to land management and implementation of sustainable practices as a whole.

VCMC recently embarked on a three-year project to develop a knowledge management business plan and undertake a brokering trial within the area of soil health. There are five key stages in the project as follows:

- Complete a business plan for the delivery of a preferred knowledge management model.
- Develop a paper on options, roles and responsibilities for knowledge brokers in Victoria.
- Undertake a soil health thematic analysis and prepare a report on this subject;
- Implement a soil health knowledge broker trial.
- Evaluate the trial and implications for a broader statewide knowledge strategy.

Council expects this work will be an important stepping stone in the development of a statewide knowledge management framework and strongly urges the Victorian Government to take up this challenge.

Monitoring, Evaluation, Reporting and Learning

The VCMC strongly supports the establishment of performance measures and considers that around 10% of the funding for any program should be allocated to monitoring, evaluation, reporting and learning.

In order to track movement in environmental, social (eg. demographic trends) and economic factors that are central to delivering sustainability, it is important to have realistic targets in place.

Every Victorian has a responsibility to make certain that we are meeting our sustainability objectives. CMAs, for example, will need to be diligent in ensuring that sustainability targets outlined in RCS are met. CMAs should maximise opportunities to build on sustainability targets at a regional level when developing the next iteration of RCS.

But while reporting against targets and observing trends is necessary, it is not an end in itself. We need to adaptively manage our programs and policies and, where necessary, make adjustments and improvements along the way to ultimately ensure that targets are being met. Otherwise we are only doing part of our job.

Recommendations

- Recommendation 1.** Work closely with government, industry and the community to bring about broad-scale attitudinal and behavioural change towards sustainability.
- Recommendation 2.** Develop and implement a statewide catchment management strategy and accompanying investment plan to achieve integration across existing programs and policies relating to land, water, biodiversity and air.
- Recommendation 3.** By 2006-2007, design and implement a comprehensive landscape management program for 2006/07 (possibly a White Paper on land) that identifies clear strategies and targets to achieve sustainable landscapes.
- Recommendation 4.** Establish a market framework for trading in ecosystem services across the State whereby the broader community pays for the sustainable management of land, water, biodiversity and air.
- Recommendation 5.** Investigate benefits of moving towards an integrated whole farm plan approach to sustainability in consultation with land managers, and explore a range of policy options.
- Recommendation 6.** Develop and implement a statewide framework for knowledge generation, synthesis and exchange to facilitate an informed approach to decision-making.
- Recommendation 7.** As a matter of urgency, develop a comprehensive suite of sustainability targets that are meaningful and transparent and adaptively manage programs and policies to ensure that targets are routinely met.

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