



Regional Final Report

North East Victoria Region

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- Southern Rivers Catchment Management Authority (NSW),
- North East Catchment Management Authority (VIC),
- Southern Gulf Catchments Ltd (QLD) and
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1 Part A: Setting the Context for the live project

1.1 The key factors impacting on resource condition

This section examines the key factors impacting on the condition of the natural resources in North East Victoria. It starts by identifying the resource condition trends for each of the three key physical assets—land, water and biodiversity. It then describes the major biophysical, social, institutional and economic factors impacting on or contributing to these resource condition trends. (Further details on the resource condition and the factors impacting on them are provided in the North East Regional Catchment Strategy (RCS) (available at www.necma.vic.gov.au and the North East of Victoria Regional Report).

The key resource trends and concerns are outlined below.

- § The Land asset—Soil health is poor in many areas, soil carbon levels low, soil acidity is rising on agricultural land; soil structure is poor in some areas; erosion is still occurring particularly gullying; there are small areas of dryland salinity where there is a need to reduce water losses from the system using perennials etc.; and many areas have problems with weeds and some areas with pest animals.
- § The Water asset— river health and quality are deteriorating in some streams, nitrogen and phosphorus pollution remains a problem, bank erosion and instability is occurring, streamside vegetation is declining and some problem species (eg willows) are increasing; there are problems with turbidity resulting in part from runoff in areas with insufficient ground cover; and there are some localised problems with water-borne diseases.
- § The Biodiversity asset—The priority EVCs need improvement in extent, quality and distribution; within the endangered and vulnerable EVCs there is a need to restore native vegetation; the rate of loss of threatened fauna and flora needs to be reduced; ecologically significant weeds need to be reduced on both public and private lands; and there is a need to reduce the impact of pest animals on biodiversity assets.

1.1.1 Biophysical Factors

The biophysical features of the North East region have helped shape the types of resource condition challenges that the North East Catchment Management Authority (CMA) now faces and they have influenced the way that the CMA operates.

The topography and physiography of the region enable it to act as one of the major suppliers of water into the Murray-Darling system—the region accounts for 38% of this supply. Uplands and mountains occupy almost two thirds of the region and nearly of all this is public land. Public land represents 55% (1,100,000 ha) of the region and it is primarily managed as state forests (700,000 ha) or as state or national parks or reserves (400,000 ha). The region is extremely vulnerable to both fire and flood. In 2003, 770,000 ha of mainly public land was burnt out. Floods are regular occurrences and because a high proportion of the population lives on flood plains, floods are costly (In 1993, flood costs were \$300 million).



The CMA has a major focus on water management and relies heavily on its partnership with the public land managers to achieve its objectives.

Many of the largest programs managed by the CMA are related to recovery after fires and floods.

The physical features of the region creates 'amenity landscapes' which are attractive to many people both as tourists and as new residents. The region provides easy access to the high country with its snowfields, bushwalking, and heritage interests and to its rivers and lakes. Albury-Wodonga, (one of the original designated national growth centres) and Wangaratta have attracted industry and investment and offer good lifestyles for people wanting to live on rural land while commuting reasonably easily to work. This has led to an explosion in peri-urban rural sub-division and has changed land use in most of these areas from traditional agriculture to houses, horse paddocks, small vineyards, olives, alpacas and numerous alternative forms of land use.

The CMA now has a new class of landholder with different interests, knowledge and needs.

The agricultural capability of the region is limited to the land associated with river valleys and flood plains and to the foothills of the more mountainous areas. The small area of land with high agricultural capability (6% of the total agricultural land) is restricted to the fertile river valleys of the Kiewa, Ovens, King and Mitta Mitta rivers. It is used intensively either for dairying or for horticulture including tobacco, hops, vines, nuts and fruits. Most of the region (55%) is classed as moderate agricultural capability, and most of this is found adjacent to the river valleys or on lower slopes. The remaining 39% of the agricultural land has low capability and this is concentrated in the hills and upland parts of the Ovens valley in the north west of the region.

The soils associated with land of moderate or low capability are relatively low in fertility, tend to be acidic and have poor structure. This land is used almost entirely for grazing apart from some broadacre cropping in the northern and north western parts. Farm 'improvement' historically involved clearing, use of superphosphate and sowing of sub-clovers in addition to sowing of exotic perennial pastures. When fertilised regularly and when grazed appropriately, this system resulted in higher production. However, often land is over-grazed particularly in autumn resulting in loss of perennial species, low ground cover and runoff of soil and nutrients after rain. Also, the new system was less efficient in using the available rainfall than the native system it replaced with the result that groundwater levels rose and in some areas, dryland salinity has developed.

The CMA deals mainly with graziers and much of its efforts are designed to deal with the consequences of excessive land clearing, replacement of native vegetation and the side-effects on the farming systems particularly poor grazing management.

The interface between public and private land is evident throughout the region with the fertile valleys surrounded by uplands which are generally public land and with the riparian zone accompanying the 10,600 km of streams often being held as 'crown land'. One of the consequences of this interface is that there is a constant concern amongst



landholders about weeds and pests, particularly in recent years where the public land managers have cut back on efforts to control these.

The CMA is under constant pressure from the community to address the pest plant and animals issue which is consistently ranked as the highest priority. The governments investing in the Regional Catchment Strategy (RCS) have not ranked this issue highly in the past.

1.1.2 Social Factors

The physical features of the region (along with the discovery of gold around Beechworth) have determined the settlement patterns with the population concentrated into the river valleys and into the major towns in the region (particularly Wodonga, Wangaratta, Bright, Myrtleford, Beechworth and Rutherglen).

This settlement pattern, along with the physical separation into river valleys, has created tightly knit communities with strong ties to past practices and values. These communities have been instrumental in establishing and maintaining a high level of participation in Landcare with 58% of properties represented by landcare members. The communities have strong social networks which are often better connected to the landcare groups than to the CMA or to DPI/DSE.

The CMA reaches out to the wider community through the newly introduced annual catchment forum across the region but there is a major challenge in establishing deeper levels of engagement with communities.

Demographic change is disrupting the traditional patterns of settlement and economic activity. Many operators of traditional farms now find that their farm is too small or that they are too old to continue to operate as full time farmers so they are finding work off-farm. A high proportion of farms are changing hands or being sub-divided and it is estimated that some 60% of land will change hands over the next decade. In contrast to this situation there are some notable exceptions where farmers have successfully diversified into new more intensive enterprises (viticulture, nut growing, seed production, honey etc) and tourism.

The CMA often find that a shortage of labour restricts the rate at which NRM projects can be carried out and consequently are moving towards providing fencing and planting services as part of their projects.

Much of the sub-divided land is being purchased by lifestyle land managers who now account for almost 20% of the agricultural land across the region. These new owners live on small areas and commute to work in nearby towns or operate from a home office. Rather than representing one group, research has shown that these land managers are extremely diverse in their interests and motivation.

The CMA is just starting to reach out to this new group and has yet to determine how best to do so.



1.1.3 Institutional Factors

The CMA is almost entirely dependent on partnerships to achieve its objectives both as a result of its mandate and its resources. Since its creation it has emphasised its role to help coordinate the delivery of the RCS through its partners, particular the Departments of Primary Industry (DPI) and Sustainability and Environment (DSE) and their predecessors. Both DPI and DSE have themselves been the product of several major re-structures and re-alignments over the past 10 years which have added to the confusion that some community members have over responsibilities and roles for natural resource management and primary industry production support.

The CMA has had to create its own structure while working with constantly changing partner agencies in a time of considerable institutional change. At times the CMA has chosen to raise the profile of the partnership rather than its own profile with the result that the CMA is still a little-recognised agency across the community.

The CMA's role is to implement the RCS which represents the community's objectives and aspirations for NRM in the region. However, without any resources of its own since the waterways tariff was abolished, the CMA largely responds to investors being principally the Federal and State governments. The goals and objectives of the investors change over time and are not necessarily entirely consistent with those of the community so the CMA has to juggle the available funds to achieve both the RCS objectives and the particular needs of the investors.

As a 'second-best' approach, the CMA has well developed formal and informal networks and communication channels with the investors so that it can operate effectively within these constraints.

Although the staff of the CMA has grown from less than 20 at its inception to almost 50 now, it is faced with particularly heavy workloads. All its staff appear to be working under heavy demands and this has prompted management to review the work loads and approaches with a view to ensuring sustainability.

The growth of the CMA and its heavy workloads may have mitigated against taking on some new challenges in the past but the CMA is now addressing these issues as part of its continuous improvement program.

1.1.4 Economic Factors

The traditional agricultural industries (beef production, wool and prime lambs) have struggled to cope with the declining terms of trade which have seen costs rise more than incomes. Whereas there has been scope in other regions to expand the scale of operations by purchasing land, this has generally not been the case in the North East. Land is tightly held and its value has increased through the demand of the new lifestyle land managers with the result that it is almost impossible to purchase land at a price that is justified by returns from agriculture. This situation has a 'knock-on' effect to regional service businesses and to the local government bodies reliant on rate revenues.

The strong demand for land for lifestyle and some new enterprises has improved farmers' equity and under-pinned current operations but it reflects an inevitable major future inter-generational change in land use. When the current owners die or sell out



the future owners will almost certainly not be using the land in the same way. This demand for land is not universal across the region but driven by lifestyle attributes including proximity to employment, amenity considerations especially views, proximity to water and availability of services.

Offsetting some of the negative economic factors there are growing regional employment opportunities in the major population centres of Albury-Wodonga and Wangaratta. These opportunities in manufacturing, construction, services, tourism and transport have helped draw new inhabitants to the region but have also made it possible for farmers and their adult children to find off-farm work.

The negative economic trends have meant that the CMA often has to contend with the view that 'it's hard to be green when you're in the red' with many farmers unwilling to be engaged in what they view as a solely 'green' or environmental agenda of the CMA.

The positive economic trend means that the CMA has a new group of stakeholders as discussed earlier.

1.2 The distinctive characteristics of North East Victoria

This section describes the five characteristics of North East Victoria that make it distinctive and that help explain what has been happening in NRM in this region.

1.2.1 Past History

Unlike the situation in some other regions in Australia, there is a long history of institutional connections between the community and the various predecessors of the North East CMA. The CMA evolved out of river improvement trusts, which became river management authorities which merged with the then catchment and land protection board to become the CMA in 1997. The CMA operates quite differently from its predecessors, under different mandates and with different funding arrangements. Some members of the community are unaware of those changes and don't always understand the CMA's role. There is also confusion in the community about the changed roles of the CMA's key state government agency partners.

The pattern of settlement of the North East region has had a lasting impact on NRM activities. The topography meant that it was the fertile river valleys that were settled first and these settlements were physically isolated and their local communities became closely knit. These river valleys extend into the uplands which have remained as forests held as public lands with the result that many private landholders share boundaries with public land. The management of weeds, pest animals and fuel loads on public and private lands has always been a major issue for private landholders. When gold was discovered around Beechworth and the more recently in the Ovens valley, much of the more recent mining involved dredging and extensive disruption to streams and rivers. The environmental consequences of this mining activity are still being experienced.

1.2.2 Role as a Water Catchment

Although North East Victoria represents only 2 percent of the area of the Murray-Darling Basin, it contributes 38 percent of the water supply into the Murray-Darling system. This makes water one of the most important exports from the region and it ensures that



many people outside the region have an interest in the way that the CMA manages its water catchments. Almost 80 percent of the North East is classified as *Declared Water Catchment* and there are 10,600 km of designated watercourses. Parts of the Mitta Mitta and the Ovens rivers have been classified as *Heritage Rivers* the latter being the only lowland river so classified for its environmental values in Victoria.

The CMA has overall responsibility for regional water policy and river health across the region. This is a major challenge, not least because most of the users of the water are located outside the region. Some landholders resent the fact that they are unable to harvest water for irrigation from farm dams because the water has been allocated for use by irrigators and other users outside the region.

1.2.3 Land Use Patterns

The North East is unusual in that the public sector is the largest landholder with 55% of the total area. The land use across the region comprises: state forest (35%); followed by pasture for grazing (28%); state or national parks (20%); privately-owned remnant vegetation (9%); broadacre cropping and pastures (5%); softwood plantations (2%); and horticulture and other private land (1%). The dominance of the public sector simplifies the task of the CMA in most respects because it means that it deals with fewer stakeholder groups than would be the case in other regions. It is, however, yet another reason why the CMA works hard on its partnership with the public agencies managing the land. Most of the policy decisions on the management of this public land are made within the State government rather than at the regional level.

The other major implication of the land use pattern is that nearly all the private land is used for grazing and consequently grazing management is arguably the single-most important area of practice change. This is an aspect of farm management practice that is proving difficult to change with the great majority of livestock farmers following traditional patterns of set stocking despite large seasonal variations in feed supplies within the year and even larger variations between years.

1.2.4 Changing Demographics

The North East region is experiencing at least two significant changes in its demographics. Firstly, the population outside the towns is aging as the traditional farmers remain on their properties while their children have moved on and have no intention of continuing farming. This trend is driving greatly increased rates of farm break-up as blocks are sub-divided off the farm to help fund retirement and give the children some financial assistance in buying houses in urban areas elsewhere¹. The land values are generally beyond the reach of other farmers so the land is moving out of agriculture and being taken up by smaller lifestyle owners.

The second demographic change is the flipside of the first— it is the emergence of the new smaller lifestyle farmers who are moving into the region in pursuit of a different

¹ In the last three years, across Victoria as a whole, 44% of properties in the 2-20 ha range have been changing hands each year and around 20% of the properties in the 51-200 ha range (Data from Land Victoria pers comm C Hollier).



lifestyle.² These new entrants do not fit into a single class although they are often either young couples with young families or older retired couples. The effect of these changes is significant not only because small lifestyle farmers now account for around 20 percent of the 14,000 holdings across the North East (up to 35% in some shires) but because they tend to be concentrated in specific parts of the region.³ Because these new entrants are largely responding to lifestyle choices, they tend to move into those areas with particular scenic, amenity, biodiversity and social network attributes in line with their particular interests. Many of these 'hotspots' are also environmentally important for the very reasons that they were chosen by the new entrants. Hence, although the new entrants may not occupy a large proportion of the total area of the region the parts they are now managing are often strategically important from an NRM perspective.

1.2.5 Social Diversity

The North East is characterised by social diversity both in its 'traditional' communities and in its new entrants. The 'traditional' communities are diverse largely as a result of the settlement patterns with isolated closely knit communities banding together. The new entrants are socially diverse because they come from a wide variety of locations and have values, interests and perspectives that are themselves diverse. This group and others are discussed below.

1.3 Stakeholder analysis

This section describes and assesses how well the region has tackled the tasks of understanding, communicating with and engaging their stakeholders.

1.3.1 The Stakeholder Engagement Processes

When the North East CMA was first established in 1997 its board defined its purpose as (among other things) 'providing a vehicle for community-wide involvement in catchment management especially through implementation committees'. As a result, these implementation committees became the primary means for the board to engage with the wider community. At the same time, the CMA began work on building the partnerships that it needed to deliver the RCS outcomes. In addition, at the operational level, staff engaged directly with participants in project and programs. The three Implementation Committees (IC) each comprised 9 selected local landholders and a state government (DNRE) representative and they each covered a sub-region and advised on priorities, provided local input and monitored implementation. They met locally, conducted 'open forum' sessions prior to meetings, facilitated two-way exchange of ideas and knowledge about NRM between the community and the CMA. This development of the ICs was purposeful, strategic and to a degree, sustainable. It was a successful strategy and it tapped into the 'movers and shakers' in the tightly knit communities. The ICs had

² Information on the new smaller lifestyle farmers is now becoming available from Carole Hollier et al from DPI at the Rutherglen Research Institute as a result of the State Government's Ecologically Sustainable Agriculture Initiative and two RIRDC supported studies *Development of appropriate education training for the small and lifestyle sector* and *Improved delivery mechanisms for sustainable land management*.

³ Some 60% of all farms in the NE are classified as small farms being less than 100 ha



strong links and cross membership with key community groups and particularly with Landcare and this further expanded the zone of influence of the CMA. At this stage of its evolution, the CMA was focussed on planning and the ICs were invaluable in developing strategies and detailed works programs to implement the strategies. To help build a region-wide approach to NRM issues, in 1999 IC members were given specific 'portfolio' responsibilities in addition to their general responsibility to represent their own local community.

In addition to the community-wide engagement efforts, the CMA and ICs began targeting their engagement on strategically important 'hotspots'. As an example, with water quality and biodiversity as the hotspot drivers, the CMA and ICs identified and worked with the horticulture industry in developing extension programs aimed at water quality improvement in the Ovens, King and Kiewa basins. Similarly, the waterway management issues were managed by identifying and working with relatively small groups of riparian landholders. Salinity management efforts were focussed on individuals and groups occupying those parts of the landscape where action was needed. Efforts to address soil health issues which were not localised required different engagement processes. The CMA and the Rutherglen Research Institute (RRI) worked with the Landcare network to complete a soil health audit, then published a community awareness manual to help landholders assess their land's soil health. They then conducted regional soil health forums with the community to develop action plans and this led to 18 workshops across the region to develop participants' skills in managing acid soils. This engagement was purposeful, highly strategic and mutually beneficial in the short term sense but it was not intended to be sustained in the long term.

The CMA saw the value in driving much of its engagement through its partnerships. The most important of these has been the partnership with DNRE/DPI/DSE which has been the main delivery mechanism for state government funding into the RCS (apart from river health). The CMA has built on and worked through the engagement that DNRE/DPI/DSE has with its own stakeholders. This engagement has tended to be program or project specific but more recently it has widened out as in the case of the 'small and lifestyle farmer' initiative.⁴ In addition, all the CMAs in Victoria participated in a project designed to strengthen the partnership between the CMAs and DNRE. DPI/DSE now has its own community engagement strategy and the CMA is benefitting from the more strategic approach that is being taken by its partner. The partnership with local government is another area where the CMA sought greater engagement. As an example in 2001 the CMA and its partners launched an "Our Waterways" campaign through TV, radio and press to foster practice changes leading to better water quality. It supported this with a community education program which was developed jointly with the City of Wodonga, Indigo Shire Council, North East Region Water Authority and the Albury Wodonga Development Corporation. Similarly it helped local government develop educational materials on pest plant and animals. Although the importance of this partnership is recognised, both parties acknowledge that much more could and should

⁴ Staff from DPI expressed a strong interest in working closely with the CMA in efforts to engage more effectively with their shared stakeholders.



be done to make it more effective.⁵The partnership with industry has included work with the Victorian Farmers Federation (VFF) on property and business planning and work with the horticulture industry on riparian management. The CMA acknowledges that much more should be done to strengthen and broaden these partnerships with industry. The community engagement associated with the partnership with NERWA is of growing importance and includes 15 joint projects on streamside habitat, the Waterwise education program and a joint committee dealing with community engagement (amongst other things) between both boards. The partnership with non-governmental organisations is most evident in the case of Trust for Nature where it has led to specific engagement with targeted stakeholders to provide control over 'priority bushland' through conservation covenants as well as broader community education workshops.

In 2002 the CMA developed a formal Communications Strategy with assistance from communication specialists. It saw the strategy as: informing 'target audiences' of progress with the RCS; facilitating the change process; and helping build partnerships with the community. (This strategy is about to be completely revised with the appointment of a new communications specialist).

In preparation for the formulation of the new RCS, the CMA devised a community engagement strategy to enable the RCS to be implemented. This strategy involved: forming partnerships; communicating and promoting interactive learning; and reviewing organisational systems. It also prepared a 'People Assets' background report recognising that different strategies and actions would be needed to reach the different cultural and geographic situations of the each group. The consultation for the RCS was extensive and tailored to reach stakeholder groups across seven locations in the region. The current RCS moves engagement to centre stage for the CMA as indicated by part of its mission—'*we operate by engaging the community and working in partnerships to initiate, co-ordinate and integrate catchment management programs whilst representing the interests of the region's natural resources locally, statewide and nationally*'. Similarly, three of its five strategic objectives reflect its focus on capacity building and practice change.⁶

In 2004 the CMA further developed its approach to community engagement with the formulation of a detailed Community Engagement Policy (CEP) and strategy and the establishment of asset-based Advisory Committees to replace the geographically based ICs. The formal CEP set out the principles for community engagement and indicated that community engagement was to be the basis for the way the CMA would operate. The CEP is considered to be a work-in-progress following an adaptive management approach and the CMA has commenced implementing two new projects which are trialling the principles set out in the CEP. It is also implementing a river tender project which offers a new way of engaging stakeholders by eliciting their bids to become involved in NRM activities.

⁵ This was evident from a survey conducted amongst local governments as part of this project.

⁶ Those strategic objectives are to: help achieve the understanding needed for effective NRM; build the means and capacity to implement plans; and to facilitate necessary changes in practices and management.



1.3.2 Gaps in Understanding of Stakeholders

Reflecting on the evolution of the engagement process outlined above, we can draw the following conclusions:

- § The drivers for the process have been a mixture of strategic intent and issue-driven needs. This has had benefits (efficient use of scarce resources) and costs (low profile in community and neglect of potentially more effective approaches) but, provided it is part of an adaptive management approach, it is appropriate.
- § The position that the CMA has now reached is that the Board's policies for community engagement have not yet been fully translated into practice on the ground. Some managers are very receptive and want to do more, others are sceptical and want to do less. The CMA needs to follow up to ensure that the CEP is fully implemented and becomes part of the agency's culture.
- § The management of the CMA respond to the signals they perceive to be coming from the investors and the strongest signals are for results on the ground. There is a tendency for management to get nervous when the already over-stretched staff start spending more time on engagement at what might seem to be the expense of getting the job done.
- § The CMA has a low public profile outside its regular clientele. This is in part a consequence of working in partnership with DSE which has been around a lot longer and has the mandate for most of the 'coal-face' activities with stakeholders. The low profile does, however, mitigate against engaging some of the social networks in the community.
- § The CMA is almost certainly reaching less than 25% of the community and probably only 10% but arguably, up to this point, it has been reaching enough of the 'right' people to achieve good results on the ground. Achieving practice change in order to improve resource condition is not simply a numbers game but a question of reaching and influencing the appropriate people in the appropriate places.
- § The CMA has harvested most of the low hanging fruit in terms of practice change and will now have to find new approaches to engage with and influence people and agencies that have proved to be the more difficult to reach. It will also need to consider alternative approaches that might be more effective and efficient by tapping into different strategies (see later).

The particular groups where the engagement to date appears insufficient are discussed below.

Small lifestyle landowner/farmers (defined as operating holdings between 2 and 100 ha and earning a majority of income off-farm) comprise 60% of the 14,000 rural landholders in the North East. Across the region between 20 and 60% of farms earn less than \$75,000 in gross income. Until recently, the CMA knew little about this numerous and rapidly growing group although it did recognise that they had become an important element of the catchment community. Current research by DPI has shown that this group is far from homogeneous and that their attitudes to NRM and land stewardship in general vary greatly. They have varied motivations and diverse learning styles and their



needs for communication and engagement are different from those of traditional farmers. Already the CMA and its partners are experiencing their demands for information and support. The impact that this group has on resource condition is varied however, depending primarily on their location in the environment. The appropriate response might be double-barrelled—a broad communication strategy with streamlined and efficient access to information coupled with a strategically focussed engagement with those landholders whose practices impacted directly on resource condition.

The traditional non-participants farmers who operate outside the landcare movement and production elites may account for as much as 30 - 40% in addition to the small lifestyle landholder/farmers. These farmers follow traditional practices, generally don't attend meetings or seek information on possible practice change and are mainly struggling financially. Some within this group manage land that is strategically important to the achievement of resource condition targets such as riparian landholders, those located in salinity recharge areas and those with potentially valuable habitat. The CMA and its partners engage with these farmers on a 'as needed' basis mainly through one-on-one negotiation coupled with efforts to build some peer pressure. There is a view amongst some that this group won't remain much longer as age and financial circumstances take their toll. The most likely way to engage with part of this group is through their interest in improving productivity and profitability. To this end the Sustainable Industry Initiative within the National Landcare Program (NLP) and other similarly production-focussed activities offer the best prospects. Similarly, there is some evidence from the live projects (discussed later in this report) to suggest that some in this group can benefit from group learning processes which appeal to many farmers when conducted on-farm or around the shed.

The community social networks such as hall committees, CWA, school communities, rural health groups, women's groups, craft groups, church groups, football and sporting clubs, fire brigades are important in the influence that they exert over land managers and their members will often have valuable contributions to make to NRM. These groups are the ones that actually make things happen in the local community— from organising working bees to supporting families in need. They have a higher level of acceptance in the local community than any other grouping and if they give their imprimatur to any activity or agency it is likely to be widely accepted. To some extent these groups are the community's 'gatekeepers'. The CMA has not engaged well with these social networks.⁷ If the CMA is known at all (and it generally is not) it is seen as a largely bureaucratic agency, remote from their interests and needs. Engagement with this group needs to be done personally with senior CMA staff spending time in the community listening and learning. It probably is better done over a kitchen table and a cup of tea than in a hall or at a field day but the important thing is that the CMA needs to come into the community on the community's own terms to learn about the community's agenda. At a later stage in the engagement the CMA will be invited to promote its own agenda.

⁷ Based on feedback gathered during the live projects.



The linkages with local government are in place and functioning but need to be further strengthened. Through its role in administering planning schemes and its role as a land manager, local government is important in catchment management. It is also important as a community facilitator where it can advocate appropriate NRM practices. There are a variety of small initiatives that could be taken to strengthen the linkages including: participation in each other's meetings (at designated times when relevant agenda items were to be discussed); advisory committee meetings to regularly consider local government perspectives; professional links between CMA staff and local government staff; joint preparation of action plans for local government's input into the achievement of RCS objectives; presentation by CMA of standard training programs for councils and their staff; and MOUs between CMA and local governments to formalise the partnership.

The urban populations within the region represent about 60% of the total population of the North East. The CMA's engagement with this group has focussed mainly on joint efforts with NERWA (Waterwise) and the local governments as well as the schools programs. Currently the CMA is working on an urban sustainability self-assessment kit derived from its work on EMS. Efforts to engage this sector when preparing the RCS were not very rewarding and generally this group has not been engaged. Engagement of this group could: widen the support base for the work of the CMA; help bridge the rural/urban gap; improve awareness of the NRM work that both rural and urban groups were already doing; and possibly provide a basis for a wider appreciation of and pride in the region's environment which might translate into increased tourism activities.

There has been little formal engagement of industry groups by the CMA. In the case of the non-primary industry groups, the CMA has found that efforts to enlist their support have been costly and largely un-rewarding to date. There is a small but growing level of sponsorship from businesses but there has been no particular effort to grow that support. In the case of the primary industries, the CMA works with the Victorian Farmers Federation where possible (property planning/Farmbis and codes of practice) but sometimes meets with opposition (native vegetation, riparian management). There is a need to build on this relationship and on other sectors of the primary industry. As an example, stock agents are often important sources of information and have contact with parts of the community (traditional non participants) who are not reached by the CMA. A program to target the stock agents with information on mutually beneficially interests such as grazing management may generate useful results and help recruit this section of the industry. However, the CMA has just recently entered a formal partnership with the Alpine Valleys Agibusness Forum to promote sustainable agriculture.

1.3.3 Profiles of the Key Stakeholder/Influence Groups

The table in Appendix 1 lists the major stakeholders and indicates the power that these stakeholders have to effect practice change for the particular NRM function and activity as seen from the perspective of the CMA. (Power is viewed as a relative concept with the power to control being greater than the power to influence. The third level of power comes from an understanding or appreciation of 'the way things work' but it is not shown in this table. It is a power that all land managers should have developed but in practice this is not the case).



The key stakeholder groups are profiled below with an explanation of why they are powerful and/or exert influence. In each profile the alignment of the interest of the group and the CMA is also discussed.

With water being the most important asset in the region and the focus of much of the RCS, riparian landholders are arguably one of the most important groups of stakeholders. Their importance derives from the fact that it is the way they manage their riparian land that largely determines water quality and quantity further down the system. This group has little in common apart from their ownership (or management rights over) riparian land. Most of the dairy farmers in the region are part of this group along with tobacco, hops, aquaculture, and irrigators. As far as I am aware there is no CMA activity targeted to this group as a whole and there may be merit in doing so to help extend the duty of care ethic. In practice, the CMA engages with this group when it is decided to improve the management of a the particular reach of stream on which they are located. The riparian landholders are powerful in the sense that they can determine land use although in most cases they can be obliged to act by virtue of regulations so ultimately this power is limited. They have no power (as a region-wide group) in a political sense although groupings of riparian landholders within a stream can exert considerable power (eg Mitta Mitta irrigators compensation claims for Dartmouth effects). The interests of this group are not always closely aligned with that of the CMA since the CMA is often looking for downstream effects and benefits whereas the riparian landholders are looking for benefits on their own properties.

The public land managers are likely to be the second-most important group of stakeholders by virtue of the large area of public land and the fact that this land is both a catchment area and contains most of the biodiversity of the region. These managers are all part of the State government and have considerable power (perhaps absolute authority) in the way that they manage the land. They are influenced by the CMA and its partners, particularly DSE and, after the recent bushfires, they are subject to political pressure from the community. Many of the most contentious decisions (such as control of grazing in the alpine national park high country and the extent of old growth logging) are taken at a political level rather than a departmental level. There tends to be good alignment of interests between this group and the CMA largely because they are both responding to State government policies.

The beef cattle producers are probably the next most important stakeholder group. This judgement is based on the fact that it is one of the largest forms of primary production and the beef properties tend to be relatively large with the result that beef farmers control a large proportion of the private land. They are not organised into any grouping (other than small numbers in national groups like the Beef Improvement Association which has a local chapter or the national organisation the Australian Beef Association) and hence have little political significance or influence. The greatest impact that the practices of this group has on the resource conditions in the region stem from grazing practices, soil management (particularly the use of fertilisers) and native vegetation management. There is probably a relatively high degree of alignment of



interests between this group and the CMA although it is likely that most beef producers would not be aware of this.⁸

The dairy producers are limited in number but as indicated above are often operating at strategically important places in the landscape (riparian landholders). They are relatively well organised with a high level of membership of United Dairyfarmers of Victoria (UDV) which is affiliated with VFF (and in turn with the National Farmers Federation). Since there are only two large scale dairy companies operating in the region there are strong supply chain ties. Both the UDV and the dairy company connections would make it easy for the CMA to reach dairy farmers as a group. They have the same types of impacts on the natural resources as beef only more so given the greater intensity of their production systems and their riparian location. In addition, the daily milking brings with it problems of effluent control. The alignment of interests between dairy producers and the CMA is high for the same reasons as presented for beef producers. In addition, dairy farmers are regulated and must meet various standards relating to effluent control.

The sheep and wool producers are similar to the beef producers and in fact most are also beef producers. Within this group there are some specialist prime lamb producers and some of these have organised strategic alliances offering opportunities for the CMA to work with organised groups. This is particularly relevant in areas such as EMS and more could be done by the CMA to link with such groups.

The small and lifestyle landowner/farmers were discussed above. They are numerous, powerful in an economic sense having relatively high incomes but have very little power in the local community and often feel marginalised. Those within the group that are located at strategically important parts of the landscape are important and these need to be given priority in engagement efforts. The degree to which the interests of this group align with those of the CMA is likely to be highly varied reflecting the differing interests of members of this group. Those within the group who hold strong land stewardship values would be highly aligned but there are certainly others who do not hold such values and are likely to be poorly aligned.⁹

The urban population and visitors are arguably an important stakeholder group though to date they have not received much attention. Their importance is a reflection of their large numbers and, in the case of visitors in particular, their capacity to bring along a constituency to support practice change. For the local urban populations in the major towns in the region, the way that they use water and use or abuse drains can have a major influence on water quality. The degree to which the interests of this group are aligned with those of the CMA is likely to vary very widely—some members are highly supportive of all efforts to improve environmental outcomes while others would be antagonistic or simply indifferent.

⁸ Based on the view that improved grazing management and management of climate variability would not only contribute to RCS outcomes but also improve productivity and profitability.

⁹ This is an area requiring considerable further investigation.



1.4 The influences of place, governance and institutional structures.

This section examines the ways in which the characteristics of place, governance arrangements for the CMA and institutional arrangements under which the CMA operates have influenced NRM work in the North East region.

1.4.1 Governance

The North East CMA operates under two state government acts—the Catchment and Land Protection Act (1994) and the Water Act (1989).

The North East CMA board has 11 members selected on the basis of skills and appointed by government with the chair also appointed. It has two asset-focused advisory committees one dealing with water the other with land. The advisory committees advise the board on the establishment and the terms of reference of action groups created for the duration of each major project. The board conducts catchment community forums annually at six locations across the catchment. Board members are appointed for a three year term and seven of the current board members were members of the previous board with three of these being members of the CMA's first board. The board meets 11 times per year and schedules strategic and other reviews across the year. The board has developed its own protocols for communications and its own set of values and responsibilities. It operates under a policy-based governance system with built-in assessment processes.

1.4.2 Management and Staff Development Arrangements

The CMA operates through a Senior Management Team comprising the CEO and four managers dealing with: Strategic Planning and Investment; Water Programs; Business; and Land and Water Programs. This team manages a staff which will total almost 50 when the CMA takes over responsibility for employing Landcare Coordinators in July 2005. The Senior Management team operates through Project Officers with specific project-based responsibilities in most cases.

The Manager Strategic Planning and Investment has responsibility for "People" and is supported by: the Regional NRM Coordinator; the Regional Landcare Coordinator; the Landcare Facilitator and Landcare Support Officers.

The work flow of the CMA is driven by the following: (i) the RCS prepared each five years, sets the overall strategic direction by defining resource condition, outcome and management action targets; (ii) a series of regional catchment sub-strategies and Action Plans (currently 15) which guide the approach to be taken in each major program area; (iii) the Annual Priorities document developed by the Advisory Committees and the Board; (iv) a Call for Proposals from the wider community and any stakeholders in response to the Annual Priorities; (v) the board may specify certain Commissioned Projects to be carried out; (vi) the outputs from (iv) and (v) are screened to determine priorities in accordance with the background data for the RCS; (vii) the Regional Catchment Investment Plan (RCIP) is a three year rolling investment plan updated annually detailing budgeted expenditure on each program and project (while Federal funds are committed on a 3 year basis State funds are committed only on an annual basis at this stage). The RCIP includes the equivalent of a Regional Management Plan

which specifies the activities to be implemented, sets the activities for the Advisory Committees, specifies the Monitoring and Evaluation tasks and presents the overall Corporate Plan. At present this RCIP process is cumbersome and protracted requiring particularly long lead times (up to 18 months) to prepare the RCIP.

The work practices of the CMA are guided by 35 formal CMA policies dealing with most of the major CMA initiatives including community engagement, waterway action plans etc.

The CMA is currently developing a new integrated system of monitoring, evaluation and reporting to replace what was previously a series of un-related M&E and reporting frameworks which responded primarily to investor's needs. It has statutory obligations to produce an Annual Report with assessments of resource condition as well as performance against plans. It reports comprehensively on each of the state government's projects and against the overall Federal government's investment. It conducts a Community Benchmarking Survey, maintains an Index of Stream Conditions and reports on the Annual Catchment Community Forum.

1.4.3 The Relationship amongst place, governance and institutional arrangements

The ways that the CMA does business today are a reflection of the interacting influences of place, history, governance and institutional arrangements. The institutional arrangements dominate the influences for a number of reasons. Firstly, the CMA has no regional sources of funding so that it is entirely dependent on funds from the State and Federal governments. In the case of the Commonwealth, the past delays and uncertainties in funding have now been largely overcome. In the case of state funding there can still be delays in releases and uncertainties about what will be funded. Secondly, the State government clearly has its own priorities which are wider than those of the North East and this requires careful negotiation on the part of the CMA to find compromises between the local priorities and those of the state government. This is also true of the Commonwealth government but to a lesser extent—there's more of a willingness to support the region's priorities. Thirdly, apart from its work in waterway management, the CMA operates almost entirely by means of partnerships with others but these are often not equal partnerships. The state agencies which are responsible for most of the funding and work on the ground often have the major influence over the activities of the CMA. And working in partnerships (with the CMA the minor partner) makes it hard (and inappropriate) for the CMA to raise its profile. Fourthly, taking a broader view of what is meant by institutional arrangements, the institutions in the form of attachment to place and past practices means that at least three quarters of the land managers in the North East are not participating in CMA activities at present. Fifthly, the institutional arrangements send strong (if unwritten) signals to management that it is results on the ground that matter and this makes managers think twice about spending time and money on protracted and costly community engagement processes. This hesitancy is quickly picked up further down the ladder in the CMA.

The 'place' influence comes through in the heavy emphasis on water in the RCS, in the emergence of the new small lifestyle landowner/farmer and in the nature of the resource



condition challenges that it is trying to tackle. It is also evident in the difficulties the CMA is experiencing in connecting with the highly diverse sub-regional communities at their level. Place drives the public land/private land tensions associated with weeds and pests and this has escalated into a loss of confidence in community engagement when the CMA was unable to find investors to support the community's priorities.¹⁰

The 'governance' influence is mainly articulated through the institutional arrangements (and the still evolving partnership with the state government agencies) but it also has an effect in emphasising resource condition change, perhaps at the expense of investment in process and people.

¹⁰ Based on the indicative RCIP for 2005/06, it would appear that this shortcoming has now been addressed with the State government supporting large scale investment in pest weed and animal initiatives (this is not correct, PPA investment is declining).



2 Part B: Impact Analysis

2.1 Assessing the impact of the context

This section examines the ways in which the context in which the CMA has been operating has affected the planning and investment carried out by the CMA.

2.1.1 Impact of Context on Planning

The current RCS for North East Victoria is the product of a very different process from that used to prepare the first RCS in 1997. The process used in 2002 was a risk management approach with the central theme being the identification of assets by the catchment community and the threats posed to those assets as identified by the community and a technical panel. It was a highly strategic approach with the hierarchy of targets and consideration of management options to address the threats. The RCS that was generated by the CMA in 2003/4 was of high standard and its quality reflects well on the capability of the CMA and no doubt also reflects the maturity that comes from six years of experience.

The deliberate period of review of the previous RCS and visioning appears to have been a most worthwhile change in the process and placed the CMA in a good position to have confidence about what it wanted the next RCS to deliver. The planning involved wider and more purposeful community consultation than had been the case in earlier catchment plans and this in turn led to the CMA developing its own Community Engagement Policy in 2004. The focus of the plan shifted to targets for the region as a whole rather than project emphasis that had characterised the previous plan. The plan itself reflected stronger influence of investors with the Commonwealth influence in terms of prescribed process and timetables particularly evident. The process also revealed a deeper understanding by the CMA of the need for capacity building. This is evident in the move from a 'Transfer of Technology' model to the more process-oriented participatory approach that was used particularly in the joint discovery of assets and risks which was clearly flagged as an ongoing process that would extend over the life cycle of the RCS. The process was to some extent consultant driven, largely because of time pressures and it appears that this may have elicited fewer inputs from the CMA's partners. Perhaps as a result, the RCS was subsequently viewed by many as a CMA product.

The process seems to have reflected a genuine advance in efforts to provide the community with more say and more influence over programs that will shape the landscape. This influence does however, remain constrained by the continuing high level of government control over the projects that are funded by the State.

Reflecting the investor's mandated approach, this RCS had a focus on targets and gave little emphasis to the strategies, programs or projects needed to pursue those targets. This now appears to have been a shortcoming since the CMA has still not been able to



implement effective processes to design the programs and projects needed to achieve the RCS targets.¹¹

The recent RCS was also compromised by the limited timeframe that was allowed by the investors which meant that many processes were rushed leading to the need for out-sourcing and foregoing of opportunities to build capacity in planning within the CMA itself.

2.1.2 Impact on the Plan and Investment

The plan for investment and implementation of the RCS takes the form of the Regional Catchment Investment Plan (RCIP). The impact that the context in which the CMA has been operating comes through in various ways as revealed by the indicative allocation of funds requested for the 2005/06 year (Appendix 2)¹². The major influence has been the institutional arrangements with the dominance of state funding particularly evident. (State funding accounts for two thirds of the indicative 2005/06 funding and 100% funding of the CMA administration costs). The RCIP reflects the strong interest of investors (particularly state) in water which accounts for 54% of the total and land which accounts for 30% but this is also consistent with the influence of place. The allocation in the budget landcare, industry support and indigenous support accounts for 16% of the total with the majority associated with landcare support which is a reflection of decision by the CMA to takeover the cost of landcare coordinators.

The operating context for the CMA has also contributed to the investment planning process which is complex and time consuming. At present, it takes the CMA at least 12 months to develop the annual RCIP. Part of the investment planning process involves investment screening of potential projects but this screening only includes Commonwealth funded activities since the priorities for State funds have already been decided and mandated by the State government. There has been a trend for Commonwealth to allow the CMA greater flexibility in deciding how to use Commonwealth funds and this has been most welcome and has facilitated substantial improvements in the CMA's capacity to operate effectively. At this stage there has been little change in flexibility in the allocation of State funds.

The North East CMA was excluded from the National Action Plan for Water and Salinity (NAP) whereas as a majority of the CMA's in Victoria were included. This exclusion created 'poor cousins' to a certain extent because it meant that the excluded CMA's were unable to fund some of the capacity building activities that the NAP funded CMA's were carrying out.

It is important to recognise that RCS just set the targets, not the way they could be achieved. In practice, the way there were to be achieved was largely set by the funds available and the strings that were attached to them. One example of this 'disconnection' between the theory and the practice is evident in the limited extent to

¹¹ As will be explained later in this report, this may reflect the nature of the funding arrangements more than any shortcomings on the part of the CMA.

¹² The total shown in this table excludes corporate support of approximately \$2 million

which the CMA engaged with its stakeholders prior to any 'action planning'. In practice, the CMA often prepared action plans (with little or no stakeholder engagement) as a basis of their bid for funding. If funding was received it was only for the current year and hence the CMA then had to quickly ensure that it delivered the 'hard' outputs and outcomes that the investor had requested. Inevitably this meant more focus on immediate action and less on the 'soft' outputs associated with stakeholder engagement and capacity building. This tendency to move straight into action to meet timelines was also encouraged by investors' pre-occupation with activities at the neglect of longer-term outcomes. While the accredited RCS process and the regional funding model encouraged the CMAs to think strategically about how to achieve longer term outcomes, the investors themselves expressed frustration at what they regarded as on-going 'planning' at the expense of 'on-ground' works. As a result, their funding processes encouraged the latter at the expense of the former. In addition to these disconnections between theory and practice, the reliance on projects as the means of delivery of NRM further constrained effectiveness. NRM is largely project driven with the CMA rushing to develop projects for the next year while still having their staff paid out of current year projects. These projects are too often short-term and are rarely planned as thoroughly as they would be if there were greater certainty about funding and more realistic timeframes.

Apart from the obvious effect that these funding limitations have on the quality of the projects themselves, they also severely limit the scope for building capacity and ownership amongst stakeholders. The way the CMA and its partners implement their projects is often working against the basic thrust of the NRM logic in building capacity to support long-term sustainable changes in practice.

2.2 The effectiveness of the processes

This section looks at the strengths and weaknesses in the approach to NRM taken by the CMA. It uses a 'straw man' or idealised set of conditions for effective practice change as the basis for its assessment of effectiveness. It also provides some general observations on effectiveness in relation to governance and other attributes.

2.2.1 The idealised conditions needed for effective practice change and community engagement

In order to achieve effective practice change and community engagement, the following conditions must be met. These conditions have been grouped into six areas although there is some overlap.

Group 1: Pre-conditions for change:

1. CMA is clear about the resource condition change that is being sought and the benefits that would be achieved (and by whom) if this change were achieved.
2. CMA is clear about the views of investors and partners about this resource condition change and their willingness to support action. This is reflected in the RCIP.

3. Investors are providing support for a range of additional investment tools (eg NLP, Envirofund, commissioned studies) to complement the regional funding model.
4. CMA has communicated this information/perspective widely across stakeholders

Group 2: Knowledge and understanding of causes and possible solutions:

5. CMA (and its partners) understand the causes (social, institutional, economic and ecological or technical) for the current resource condition trend.
6. CMA (and its partners) have considered and are aware of a range of feasible/practical practice change options to address the causes.

Group 3: Stakeholder analysis and community engagement in support of change:

7. CMA (and its partners) have identified the stakeholders who could contribute most effectively to the change in resource condition (Key stakeholders)
8. CMA (and its partners) understand the perspectives of the Key Stakeholders including both (i) to the resource condition, its trend, its causes, possible actions and their perceived barriers and (ii) to the other 'things they want to do or change in their operations'

Group 4: Negotiations with participants:

9. CMA (and its partners) work with the Key Stakeholders to reach mutual agreement in broad terms on actions which they are prepared to take to contribute to resource condition change being sought. This negotiation would include estimates of costs and cost sharing as part of a hybrid incorporating both Duty of Care and 'beneficiary pays' approaches.

Group 5: Project design process:

10. CMA works with Key Stakeholders and Key Partner(s) to formulate detailed program/project and action plans to achieve the desired result. This may involve preparation of a Logframe or a range of other project design and monitoring tools. (Note: not all potential participants need be involved but the program/project should provide a vehicle that could be used by any participant meeting certain objective criteria such as location, land use etc)

Group 6: Implementation processes:

11. CMA along with Key Stakeholders and Key Partners implement the program/project efficiently, monitor the implementation of the program/project and action plans, reflect on results and adapt the program/project and action plans as agreed to be appropriate.
12. On completion (and/or progressively through the life of the program/project) the CMA along with Key Stakeholder and Key Partners arrange for appropriate levels of evaluation of the process.



2.2.2 Effectiveness of the 'Pre-conditions' for Practice Change

Effectiveness varies according to the particular change being sought but generally the overall effectiveness is low¹³ largely because of inadequate institutional arrangements. Particularly weaknesses include: (i) almost no quantification or documentation of costs and benefits of practice change owing to shortages of time (within project and or budget cycles) and resources including appropriate practical benefit-cost methodologies; (ii) some uncertainty about investors' willingness to support 'soft' outputs related to on-going planning and engagement; (iii) very limited access to funding outside the regional funding model; and (iv) limited efforts to communicate information to stakeholders owing to time and resource constraints and to the lack of the specific information. This last shortcoming also includes the lack of any substantial on-going support for and efforts to foster a land stewardship/duty of care ethic across the wider catchment community.

2.2.3 Effectiveness of knowledge of causes and possible solutions

Again the effectiveness varies but overall it might be ranked as medium. The strength of the CMA and its partners is that their staff are highly experienced and have good levels of knowledge of the ecological and/or technical aspects of both causes and possible solutions. The weakness is that they often do not have good knowledge of social or economic aspects and in some cases do not use the social research information that is available. The underlying cause of the weakness in this area is that the institutional arrangements are not encouraging these sorts of activity. This is compounded by the lack of effective knowledge management systems that would make it easier to access and use the relevant social data that is available.

2.2.4 Effectiveness of stakeholder analysis and community engagement

The overall effectiveness in this area might be ranked as medium. The strength is that the staff do generally have a good first-hand understanding of the perspectives of the stakeholders with whom they have traditionally worked. The weaknesses include: (i) a lack of understanding of the other stakeholders beyond the traditional participants; (ii) limited strategic thinking about how other stakeholders could or should be engaged to get greater leverage or impact; (iii) almost no thinking about the possible ways of engaging with traditional non-participants; (iv) little knowledge of possible leverage points based on finding mutual actions which address the stakeholder's own agenda for change and the NRM agenda; and (v) very little documentation of stakeholder analysis and generally poor knowledge management processes. At this stage it also appears that although the CMA does have a community engagement policy, for various reasons it is not yet being fully implemented in the field.

2.2.5 Effectiveness of negotiations with participants

The overall effectiveness in this area is high in the case of initiatives such as WAPs, River Tender and the various action plans. Based on comments from the CMA staff, it is likely that more training in conflict resolution and negotiation techniques could further improve

¹³ I have adopted a subjective 3 point scale to rank effectiveness—low, medium and high.



the effectiveness of staff in this area. For many other initiatives such as EMS where there are no financial incentives there is nothing to negotiate. This is an area where considerable progress could be made if funds were available (for example) to support provision of 'ecological services' above and beyond duty of care obligations.¹⁴

Increasingly, the CMA is making use of regulations as a tool for enforced practice change (eg in relation to waterway management) and there is some negotiation associated with the use of these regulations.

2.2.6 Effectiveness of project design

The overall effectiveness in this area is low largely because the current operating environment of short term funding and rushed funding applications leaves inadequate scope (or payoff) from better project design. In the event that investors created an environment where better project design were possible, the CMA and its partners would need to spend some time developing appropriate project design processes and, more importantly, training their staff in their use.

2.2.7 Effectiveness of implementation and monitoring and evaluation

The overall effectiveness in this group might be ranked a high for implementation and low for monitoring and evaluation. The high ranking for implementation reflects the quality of the people in the field, good work processes and strong accountability for results. There is some debate internally within the CMA as to whether implementation effectiveness could be further improved by ensuring that field staff take a wider 'sustainable NRM' perspective to their daily activities. For example, when field staff are planning and supervising gully erosion remediation this provides a good opportunity for wider discussions with the landowner about fundamental causes and possible longer term remedies.

The low monitoring and evaluation score reflects the fact that (up to now); (i) there has been no single system; (ii) the M&E processes in place have been investor-driven and provide little benefit to the CMA; and (iii) M&E is often added as an after-thought and almost never built-in at the project design stage (see reasons for this in 2.2.6 above). Reporting on progress might also be ranked as medium with the weakness being that there is a multiplicity of reporting formats, timeframes and processes all of which are investor-driven and provide little if any benefit to the CMA. (The low score for M&E is likely to be changed for a high score as soon as the CMA is able to implement its recently completed Monitoring, Evaluation and Reporting Improvement (MERI) Framework. (See later).

2.2.8 Some general observations on effectiveness of the CMA

The strengths of the governance arrangements include: good balance of skills on the CMA board and strong commitment; active Advisory Committees; dedicated effort to consult widely with RCS; Community Forums; good relationships with key partners

¹⁴ The provision of such services is particularly relevant for NE Victoria given its role in delivering high quality water into the Murray Darling system. A payment for these services to landholders following appropriate practices could serve as a powerful incentive for practice change.



particularly at the region level; strong efforts to link with local government and water authorities; hardworking, dedicated staff, and excellent high level planning and investment allocation processes.

The weaknesses of the governance arrangements include: dominance by investors particularly the state government which has had own priorities (water not weeds and native vegetation and biodiversity not production) and its own (past?) internal problems in DNRE/DSE/DPI; relative neglect of Community Engagement by investors in the past; implementation committees became too 'hands on', (little CMAs); there is a risk that the new advisory committees may be too remote from community; possibly too much continuity among board members; low profile and low personal engagement from CMA; a culture not fully reflecting the policies on engagement; and failure to reach significant groups in community.

The lack of clarity about just what the investors ultimately want to see happen in the region may be impacting adversely on effectiveness of the CMA. Is the intention eventually to so empower the community that board members are directly appointed by the community and have the major say in the CMA agenda? Should local government have a bigger role in NRM ultimately? If the end game is empowerment of the community then what is happening now does not seem to be the best way to get there since there is no clear statement of goals and no clear pathways to reach them.

A lack of trust at various levels. Although the situation is improving as discussed later in this report, it is easy to believe that there is still less than complete trust at all levels. The investors do not seem to fully trust the CMA and this is evident in the prescriptive top-down approaches that characterises many of the interactions. The CMA does not seem to really trust the community yet since they too are still operating 'top down' much of the time. The community do not trust the CMA and lump them together with big bad 'government' much of the time. Some people feel that accountability has been taken too far and sometimes it appears that it has become the master rather than the servant of good NRM process. Without a high level of trust at all levels the effectiveness of the CMA will be limited.

The effectiveness of the CMA has been greatly enhanced by its history of partnerships and of on-ground works. The CMA has learnt how to make the partnership with state and Commonwealth government work by strong personal relationships and careful informal negotiation to deal with the un-written signals. The partnership with DSE is critically important and it is carefully managed but it has not yet evolved to the stage where it makes best use of the synergies. The partnership with landcare has been very productive but the groups have become concerned as funding decisions moved away from them to the CMA. The CMA values NLP and the Envirofund because it keeps the landcare groups happy but perhaps this reveals uncertainties about just where landcare is seen as fitting into the longer term picture. Based on some feedback in the field there is still some risk that the CMA may lose the support of landcare if it does not manage this transition to new funding and support arrangements well because this might be seen as another indication that '...we don't trust you to do the right thing' and it may put firewalls between groups and their support. Within landcare there is a need to re-invent itself so that it can reach new people and it seems that NLP is the key here.



2.3 NRM Practice Change in North East Victoria

This section summarises how and where practice change has been happening in the North East region. It identifies the changes that have been taking place in the wider community as well as those in the CMA itself. It also notes some of the key areas where there has been little or no change and/or where change is needed in the future.

2.3.1 Practice Change in the wider community

Participants at a workshop held as part of this project identified the major practice changes that have occurred in three asset areas as indicated below. (Details of the specific practice changes identified are presented as Appendix 3)

For the land asset, the three major practice change themes were:

- § More planning, both local area and whole farm planning;
- § Greater use of practices that are both more productive and environmentally sustainable (perennial pastures, better grazing practices, farming to capability, improved use of water); and
- § Greater use of incentives to protect / conserve environment (Bush Tender, River Tender, LPIS and CORIS)

The various forms of farm and business planning represent significant practice change for many traditional and new landholders. Planning has been carried out through two main 'channels'. The landcare 'channel' has been used to provide support so that some or all of the members of a local group could develop whole farm plans. In some areas these landcare groups were subsequently supported to develop Local Area Plans. The 'industry' channels (for example VFF) have been used so that individual farmers or groups of farmers could develop business plans including elements dealing with succession planning and in some cases with recovery from droughts, floods and fires. I was unable to find records of numbers of these plans but anecdotally it is thought that perhaps 3-5% (300 – 500 farms) may now have plans. The drivers for participation in such planning exercises include: the land stewardship ethic with its value of farming within land capability; the social or community consideration leading to participants wanting to develop a Local Area Plan; the immediate family needs to deal with recovery from droughts, fires, floods or succession planning; and the desire to improve farm profitability and (for some at least) to link this with improved sustainability.

The table below indicates some of the most evident practice changes and suggests what might be the drivers or triggers for such changes.

<i>Practice Change</i>	<i>Triggers or drivers</i>
More extensive weed and pest control	Productivity, self interest & social
Perennial pastures & better water balance	Productivity, self interest & environmental
Grazing management & ground cover & drought management	Productivity & environmental



Liming, fertiliser use, chemical use	Productivity, regulations & environmental
Fencing out streams, gullies	Regulations, environmental & self interests
Land use change (horticulture, alternative enterprises, organic, holistic etc)	Property sales, self interest, environmental

For the biodiversity assets the practice change themes that were identified were:

- § Success in expanding area of new vegetation, improving biodiversity knowledge and understanding and participation.
- § Falling short of biodiversity targets—Threatened spp, weeds, pests, quality of vegetation.
- § As demographics change, different people (new landholders) are now involved in biodiversity conservation efforts.

Perhaps the most visibly evident practice change across the catchment landscape has been the extensive re-vegetation and remnant protection where virtually all landcare members have planted at least 500 trees and many others outside the landcare groups have also planted trees. Initially most of the plantings were single rows of trees along fence lines but now the majority are belts of mixed trees and shrubs planted in fenced off creeks or gullies, hilltops, break-of-slope or to enhance existing remnants. The drivers for such plantings include: land stewardship ethic; social or community spirit; productivity interests (shelter belts) and woodlots; and expectations of higher land values.

For the people assets, the major practice change themes that were identified were:

- § Success in increasing general awareness of environmental issues in the community and local government
- § Only part of the community is engaged in part because of fear of government regulation, disconnects in priorities, narrow focus of programs.
- § Linking of NRM priorities to social and economic (productivity) priorities needs to improve.

The level of participation in landcare grew steadily during the 1990s and now nearly all the private land in the region lies within a landcare group area and around 58% of all properties having members of landcare.¹⁵ The drivers of this change seem to have been self interest, a land stewardship ethic and social interests. The self interest has been evident in those landholders joining to gain access to landcare services including: rabbit control programs, subsidised herbicides for designated weeds, access to boom-sprayers and access to trees and shrubs. The local landcare groups have been strongly supported by both traditional and new landholders with an ethic of land stewardship. Another

¹⁵ This compares with 46% for Victoria as a whole (Curtis, A. *Landcare in Victoria: beyond on-ground work*. March 1999)



driver for some is that the landcare group offers social connections with like-minded people in the community.

2.3.2 Future NRM Practice Changes Needed

The workshop also identified the NRM practice changes needed both within land managers and the support services including the CMA. Details of the changes identified for each of the asset groups considered are presented in Appendix 4. Looking across the suggested changes, the common practices that are needed seemed to fit into four types (It was pointed out that each of these were really practice change tools):

- Improving (and sharing) the knowledge base concerning both NRM and its interactions with other social and economic and institutional issues. *E.g. Developing a better understanding of the Australian environment.*
- Improving delivery mechanisms for dealing with NRM (and other) issues. *E.g. Weed action plan not understood or read; conversations needed; start from where community is at; build trust, pride; deal with (false) perception that there is little on-ground action c.f. more plans and strategies; simplify funding applications; reduce emphasis on reporting on short term outputs but more on outcomes.*
- Addressing government policy shortcomings. *E.g. Accountability requirements both up and down are driving actions; there is a disconnection between (some of) the goals of the communities and those of government.*
- Providing incentives for action. *E.g. Payments for ecosystem services; tax incentives for non-primary producers*

2.3.3 Pathways to change

Based on the analysis of practice change in the region and in the live project, we have identified what we believe are the five major triggers and pathways that have been leading to NRM practice change in North East Victoria. These are listed below and Appendix 4 provides further details of the steps along the pathways. Consideration of these pathways to change has identified some possible strategies for the North East CMA and these are shown in parenthesis below.

1. Seeking productivity improvement (Consider how to build links to industry initiatives and to the industry R&D corporations)
2. Seeking environmental sustainability (Consider how to build stronger links to the nature groups, bushwalkers, tourist operators and to local government efforts to encourage eco-tourism)
3. Seeking social connections (Consider how the CMA could link into the grassroots social institutions to improve legitimacy and to recruit new participants)
4. Seeking self interest (Consider how the CMA could identify what are the particular interests of target groups and then to appeal to those self interests where there was an overlap).



5. Complying with regulations (Consider how the CMA could 'piggy-back on existing regulations and encourage other regulatory bodies such as local government to incorporate NRM-friendly practices in their own regulations).

2.3.4 Practice change in the CMA

There have been extensive practice changes within the CMA as it has matured and as it has responded to the changed operating environment associated with the move to regional funding amongst other changes. Appendix 5 details the changes in the CMA by attempting to characterise: what happened in the past (pre NHT 2); what is happening now; and what changes are needed in the immediate future.

The CMA responds to the signals it receives from its operating environment and these signals have been the major drivers of practice change in the CMA. One of the most important signals has been some improvement in the *level of trust* from investors. This is particularly evident in the Commonwealth through its support for the RCS, its move to provide three year indicative funding and in the flexibility it allows in allocating funding within the RCS. These changes have greatly improved the capacity of the CMA to operate strategically and to respond better to the community's priorities. The State government has been more restricted in the changes it has been able to make to its support of the CMA since most of its funding is tied to state-wide policies and most of these are implemented at the regional level through a partnership between DSE and the CMA.¹⁶ The rigidities implicit in having these investments delivered through existing defined processes limits the scope for innovation or targeting on the part of the CMA. However, there are exceptions and in the river health area the CMA is operating with more autonomy in delivery while supporting the state policies.

Another important signal concerns *accountability* and much of the operation of the CMA is a response to the need to demonstrate accountability. While the need to be accountable is widely accepted, there are some indications that the CMA is being asked to be accountable for low level inputs and immediate outputs rather than higher order outcomes and impacts. This lower level accountability is reducing innovation and tying up scarce resources in reporting. For the wider community, it often seems that the CMA is driven by accountability and that this tends to reduce the level of trust between it and the wider community.

Another signal that the CMA respond to concerns the *importance of on-ground works*. The CMA receives numerous messages to the effect that '... we have done enough planning, now we need to get onto works on the ground'. This signal influences investment allocations and makes CMA management cautious in allocating 'too much' of the funding into activities that might be seen as producing outputs other than on-ground works. This signal tends to over-ride the view of managers that nearly all of the resource condition changes require a balance of investment into both processes and works and that the processes are nearly all investments in people. One of the casualties

¹⁶ It is of interest to note that the State government did allow greater regional flexibility when funds were provided through NAP.



of this signal is the level of stakeholder analysis and community engagement that is carried out in association with projects.

Another signal that is conspicuous by its absence concerns the investors' views about the *long term future* of the CMA and the regional funding approach. One element of this concerns funding certainty and the absence of any assured funding base as was previously provided by the catchment tariff. Another element concerns the role of the community and whether or not the investors want to progressively empower the community to have greater decision-making powers.

There have been changes in nearly every aspect of the CMA operations. These changes have been driven in part by the changes in the operating environment but also by the CMA board and by management. The North East CMA has embraced the concept of *continuous improvement* and there are many examples of ways in which it has learned and applied lessons from its past experiences. However, the CMA management readily accept that they spend too little time reflecting and are mainly consumed with the business of day-to-day operations. The CMA *processes* are generally well defined and backed by board-endorsed policies. Management is constantly striving to improve investment efficiency and looking at alternative ways to deliver resource condition change although recognising the constraints associated with existing state government funded delivery modes. Investments directed to achieving resource condition targets for the water asset are largely associated with on-ground works but they always include some element of capacity building since it has been found that 100% investment in works almost invariably fails. The CMA investments directed to biodiversity and land assets are largely associated with capacity building and incentives.

The *workloads* of CMA management and staff are substantial and growing and this is a cause for concern for the CMA. The lack of long term certainty of funding means that staff are often employed on project-related contracts and this works against the implementation of longer term staff development. It may also have worked against the broadening of the skills base within the CMA to include social scientists and economists.



3 Part C: The Live Project

3.1 Selecting the live project

The CMA was and still is concerned about returns on investment and it was struggling with a lack of objective evidence on which to base future investment decisions. One view expressed was that the choice in its crudest form comes down to whether to invest in activities that will just get the change on the ground (where this is possible) or to invest the extra 30% or more that it costs to take the community into the process and try to reach the same position through real engagement. The CMA was right in the middle of the RCIP process when the project started and was particularly keen to find something more objective to help it allocate investments appropriately.

This concern led to the CMA suggesting that we should use this project to give some objective basis for making investment choices concerning investment in people and capacity building compared with investment in works and incentives. They suggested that we may be able to get some evidence for the relative efficiency of the two approaches by investigating two current projects that were taking two very different approaches.

The CMA suggested that the live project should contrast a Waterway Action Plan (WAP) project with an Environmental Management System (EMS) project. The WAP is intended to deliver a specified river health outcome usually by changing riparian management in specified ways in specific locations. These changes are all decided with limited or no inputs from landholders and are based on recommendations that have been generated by hydrologists looking at the causes and possible technical solutions to the specific river health issue. The science indicates what has to be done and where so this also identifies which landholders need to be involved. The benefits of such WAP are largely external to the participating landholders so the CMA negotiate a cost-sharing arrangement with the participating landholders. The CMA don't really expect to achieve much more from the landholder—no real practice change beyond maintaining the fences, re-vegetation, keeping down weeds and keeping the stock out. The CMA have a well-developed process for implementing a WAP and this has evolved over time showing learning by CMA. The WAP is largely a control and command approach and, given the limited benefits WAPs provide to participants, the CMA have felt that perhaps this is really the best way to go. The CMA were interested to use a WAP that was currently being implemented on Reedy Creek as the basis for the live project. It was agreed that we would look at this WAP to see what was happening inside that project against the three areas of interest of this project—stakeholders, tools and NRM planning logic.

The CMA wanted to contrast the WAP with an EMS project that was currently being implemented. The EMS was a pilot project (part of a National pilot) and represented a totally different approach. No specific (physical) resource condition was targeted although participants were asked to link their own EMS to the environmental outcomes in the RCS. It was not location specific with the participants self-selecting rather than being identified by the CMA. It was anticipated that participants would make various practice changes but no on-the-ground works were to be carried out by the CMA. Participants were offered no financial incentive and it was promoted primarily as a guided learning process.



3.2 Description of the Live Project

3.2.1 Project Objectives

The overall goal of the live project as originally conceived was to see if a comparison between the two different types of project would provide a more objective basis for making future investment decisions. More generally, the project was expected to provide some insights into the scope for improving both WAP-type projects and EMS-type projects. Additionally, the live project was intended to contribute to the three areas of learning addressed by the overall national Practice Change project viz.:

1. Whether the NRM Planning Logic works for the region. (An initial indication of the impact of investments to date on achieving NRM practice change that leads to resource condition outcomes).
2. Where and why the region invests in engagement with stakeholders (The level to which regional bodies understand stakeholders and drivers and barriers to change);
3. How the region is facilitating practice change designed to improve resource condition. (The decision-making processes used to plan for, monitor and evaluate NRM practice change).

It was also expected that the live project would 'spin out' other insights and learning opportunities that would be followed up where possible in the course of the live project.

3.2.2 The Project

The research and adaptive learning activities in the North East region were centred around two 'Flagship' programs/projects of the North East CMA.

The EMS Pilot project forms part of the Rural Land Stewardship program within the People, Capacity and Knowledge component of the RCIP. It has been running 17 months with three groups involving 42 landholder family participants. There are no direct financial incentives associated with participation in the project in contrast to many other projects associated with re-vegetation, remnant protection etc. By examining what was happening in this project, we expected to gain valuable insights into the three learning themes of the Practice Change Project—stakeholders, processes and NRM logic.

Under the live project, the action research involved the following activities. The consultant reviewed all available written material on the project and carried out a net-based review of the National EMS pilot and a range of EMS initiatives currently underway in Australia. He interviewed the Project Coordinator and his manager to learn about the process that had been followed and the experience to date. The consultant then reviewed a CD Rom with outputs from a conference bringing together the three EMS groups to identify themes of achievements, difficulties, surprises and suggestions for improvement. The consultant then selected one of the three groups and attended the next meeting of that group to observe the process being followed and to request participants' permission to be interviewed. Following the meeting (at which the consultant briefly explained the live project purpose and the National Practice Change project) the consultant interviewed two thirds of the participants from this group using a



questionnaire reflecting the key questions being asked by the Research and Communications specialists in the National Practice Change project. (See Appendix 7 for the questionnaire). Working from a full list of participants in the other two EMS groups, the consultant interviewed a further five participants using the same questionnaire. The consultant briefed both the CMA's Senior Management Team (SMT) and the Project Coordinator concerning the responses received including some negative concerns raised in one of the groups about the process of the EMS. Following this de-briefing it was agreed that the consultant would facilitate a discussion session with one of the groups to identify what changes they would like to see made in any future EMS project and in way that the current project would be completed. That session was carried out and the learnings from the EMS and the WAP part of the live project were analysed and presented to the CMA's SMT, the Project Coordinator (and to other members of the National Project) at a project workshop at Wangaratta in May.

The Waterway Action Plans (WAP) and associated Landholder Partnership Program (LPP) form the second flagship program that was studied. The WAPs are the major mechanism for addressing the water quality RCTs and also contribute to the biodiversity RCTs. The WAP and LPP contribute to the Inland Waterways component of the RCIP. The WAP provides the strategic direction for investments into river health and the LPPs serve as the vehicle of engagement with relevant landholders to undertake appropriate works and management changes. Under the LPP, the CMA negotiate cost-sharing agreements with landholders within a designated WAP area to obtain their participation in the implementation of designated works. Under the live project we examined the ways in which the LPP's and the WAPs are contributing to the RCTs. We also examined the way in which the WAP process has evolved. The live project involved the pre-implementation phase of a new Waterway Action Plan for Reedy Creek. Reedy Creek is a tributary to the lower Ovens River which has been identified as contributing significantly to water quality problems in the heritage-listed lower Ovens.

Under the live project, the action research in the WAP project involved the following activities. The consultant reviewed the past approach to WAPs in the CMA (see below) and a number of recent WAP documents including the WAP for the Reedy Creek. This WAP had been formulated following a revised process developed by the CMA after reviewing past experiences. (A summary of the evolution of the WAP is presented as Appendix 8 since it represents a tangible example of how the CMA is following an adaptive management approach). The Strategic Plan for the Reedy Creek WAP had been prepared by a firm of engineering consultants and it comprised a vision statement, objectives for the WAP, a review of past studies, a risk assessment and an analysis of appropriate management strategies and actions. The consultant met with the Manager—Water Programs and the responsible project manager to discuss the live project and to understand how the Reedy Creek WAP was being implemented. The WAP generally has an elapsed period of 2-3 years following the preparation of the Strategic Plan by the consultants. In the case of the Reedy Creek WAP, the process of consultation had involved appointment of a local steering committee and two public meetings with the affected landholders in addition to a range of one-on-one meetings between landholders and the project manager/Catchment Program Coordinator (Ovens & King Rivers). The consultant attended the third of the consultation meetings to observe the process and to



obtain permission to interview participants. This meeting was also attended by the engineering consultant who re-presented some of the technical material and recommendations from the strategic plan. The consultant interviewed three of the seven landholders who were direct participants in the WAP using the questionnaire presented in Appendix 7.

3.2.3 Project Stakeholders

The stakeholders for the live project comprised four groups: the participants in the EMS groups and the Reedy Creek WAP landholders; the project manager for the WAP and the coordinator for the EMS; the SMT in the CMA; and myself as the regional consultant.

The participants in the EMS project were all primary producers but operated a diverse range of enterprises including: beef cattle; dairy; sheep; citrus; seed production; eco-tourism; plantation woodlots; aquaculture; and free range eggs. They had each participated in a wide range of prior activities demonstrating both a very strong interest in land stewardship coupled with an intense desire to learn and to keep improving themselves and their businesses. They varied in the degree to which they were motivated by business goals but most were seeking a balance amongst business, environmental and lifestyle goals. All were involved with landcare, often as office-bearers, several were involved with the CMA and NRM in other ways and a few were also strongly involved with other industry associations. All of the participants had a long history of NRM work on their own property and, as a group, they showed a high level of knowledge and skills in NRM and in their own production fields. They operated farms ranging from small to large but the majority of participants would fit into the mid-range for size of farm operation. Their motivations for participating in the EMS centred around the following: the desire to learn about EMS early so that they would be well-placed to adopt it if it became mandatory or if they could see that it was beneficial; the desire to help ensure that this pilot led to a form of EMS that would be useful to others; and the desire to take the next (or another) step towards greater all-round sustainability. A majority of the participants attended meetings and participated in the project as couples, sometimes alternating if work obligations made it difficult for both to attend a meeting. Observing the participants operating in a group it was clear that they: were accustomed to working in a group; respected each others' views; listened well; spoke confidently from their own perspectives; expected good facilitation processes; shared a range of concerns about the way in which the EMS pilot program was operating; but overall appeared to be valuing and enjoying their participation in the program.

The participants in the Reedy Creek WAP meeting included several small lifestyle landowner/farmers with full time work off the property in addition to a range of primary producers mainly operating mixed grazing (beef and sheep) properties. All participants were riparian to the Reedy Creek. Several of the participants were members of the Project Area Steering Committee which had been established by the CMA to develop and implement the community engagement strategy associated with the WAP. The participants were diverse in their interests but had attended the meeting mainly because they were concerned that the WAP may involve actions that they did not want taken or prevent them taking actions that they wanted to take. There was a degree of frustration expressed at the meeting reflecting concerns about the length of time it had taken for



any action to be taken on dealing with the problems that the landholders were experiencing including flooding and sand deposition for some and bank erosion and loss of land for others. The participants focussed their attention on how the WAP would address their concerns which were somewhat different from the objectives of the WAP (a broadly defined waterway health objective for Reedy Creek and the very specific objective of protecting the Lower Ovens). The CMA staff at the meeting, however, were able to convince participants that the CMA had a process under which each landholder could negotiate with the project manager to reach agreement on the works to be carried out. The participants shared little in common apart from ownership of land along the creek and a desire to ensure that any activity on their land (or on upstream landholders) was in accordance to what they saw as appropriate.

3.2.4 The Context for the Live Project

The EMS project is part of the Rural Land Stewardship program. The board and management of the CMA consider it to be a very important component of the RCS because it is aimed at attitude change which they believe to be essential to achieving the long term changes in resource condition that they are seeking. The total cost of the project over three years is \$202,000 all of which is allocated to facilitation costs. The staff involved are the Rural Land Stewardship Coordinator who is the facilitator and an assistant.

The Reedy Creek WAP is part of the Water program and within that a part of the Waterway Management Plan for the Ovens Basin for which there is approximately \$1 million allocated over three years. The Reedy Ck WAP has an allocation of \$140,000 for the current year which is to cover the cost of the engineering study, the current community engagement and the initial round of works and incentives. The staff involved are the Manager—Water Program and the project manager is the CMA's Catchment Program Coordinator for the Ovens and King rivers.

3.2.5 The Response to the Live Project

The CEO of the CMA, the SMT, the Rural Land Stewardship Coordinator and the National NRM Coordinator have been strongly supportive of the live project. This has been evident in their willingness to meet and discuss issues and progress and to help provide documents and arrange visits. The heavy workload of all the managers meant that at times it was difficult for all managers to participate in the briefings and this limited the contact time particularly for the WAP element of the live project. The work on the live project was carried out at the same time as the consultant was examining broader catchment scale issues and the facility that this provided to consider issues at the project and catchment scales was valuable. The SMT indicated that they valued the contributions that arose out of the project including the spin-offs such as the work on stakeholder analysis, on project design, on M&E and on community engagement.

The participants in the EMS group with whom the consultant worked most closely (and the Coordinator) indicated that they particularly valued the contributions that the project made in helping them resolve concerns about shortcomings in the EMS approach. The consultant had no follow-up contact with the participants in the Reedy Creek WAP and it is likely that the live project has had little impact on these participants.



The live project was of interest to other stakeholders who the consultant contacted as part of the overall national practice change project and particularly community development specialists, NGO staff, social science academics, local government staff and staff from DPI involved in parallel areas of research.

3.3 Evaluation of Live Project

3.3.1 Assessment of Achievements

The live project only partially contributed to the overall goal of providing 'a more objective basis for making future investment decisions'. It did, however, provide some valuable insights into the ways in which the two types of projects examined in the live project could be improved.

The live project (and particularly the associated catchment-wide work on stakeholders, processes and planning logic) did contribute substantially to the three areas of learning that the overall national practice change project was examining. Also, as was anticipated, the live project did generate a number of other insights and learnings of value to the CMA.

3.3.2 Effectiveness of the design of the live project

The live project suffered from a design fault which was that the projects that were being investigated were still underway and could not have been expected to result in any measurable practice change in the five months available for this stage of the national project. Consequently, it was unrealistic to expect that the project would be able to provide any objective basis for choosing one investment strategy over the other. Given that we had to report in barely 5 months from the start, it would have been more appropriate to set an objective of providing some qualitative data to assist in investment allocations rather than to expect any objective or quantitative data from the live project.

Despite this shortcoming, arguably the project has helped the CMA (and others) learn about the strengths and weaknesses of the approaches being examined. The most effective part of the project process was the interaction between the catchment-scale work investigating how the CMA is operating and the project-scale work looking at the specific examples of the live project. This interaction not only provided a useful grounding for the analysis it also facilitated interactions with a wider group of stakeholders some of whom had previously been outsiders to the NRM work.

3.3.3 Project Impact

The live project itself (as opposed to the EMS and WAP projects that it examined) has not yet had any impact on practice change at the landholder level but in the case of the EMS project it has created the potential to impact on future practice change at this level. This potential has arisen as a result of the opportunity the live project created to work with one of the EMS groups to allow the group to identify the changes required in the EMS approach to meet their needs and thus to be more likely to be adopted. If the CMA is able to obtain support to implement a further round of EMS projects based on these recommendations it is likely that there will be practice change at the landholder level. (The changes that the EMS group want to see implemented are essentially to have a



three step approach to reach the ISO 14001 standard rather than expecting all participants to go straight to this level. They have suggested the use of 'Clean and Green' as the key descriptor and three levels of achievement).

The live project itself (and the other interactions with the CMA under the practice change project) may have an impact on various practices within the CMA. Whether the project actually has these impacts on CMA practice will depend on whether the learnings outlined below are implemented by the CMA and this will depend in large part on whether the investors encourage and facilitate their implementation by creating a supportive operating environment. The areas where the project may lead to practice change in the CMA are indicated below.

- § EMS—Future support of EMS-type activities might be more effective if the CMA were to consider and adopt the recommendations arising out of the Springhurst-Byawatha group's ideas.
- § WAP—The WAP process could be further improved if the CMA decides to go ahead with the suggestion to seek further training of staff in group processes including those related to conflict resolution¹⁷
- § Engagement—the CMA may be able to broaden its reach and recruit new participants by responding to the suggestions raised at the Practice Change workshop particularly those relating to engagement with community groups. In particular, the CMA is likely to obtain significant benefits if it decides to employ some staff with social science skills.
- § Partnerships—The CMA may be able to strengthen and deepen its existing partnership with local government by responding to the ideas raised by those agencies as part of the project. Similarly, the CMA may be able to harness some of the interest expressed by DPI to work together on the traditional non-participants group and by the grassroots community groups seeking closer ties.¹⁸
- § Stakeholder analysis—the CMA may also be able to recruit more of the traditional non-participants into its activities by moving on to a new phase of engagement based on linking into productivity enhancement programs from other partners.
- § Project design—The CMA may further improve its project design skills by training staff in this area (possibly using the logframe approach) and linking this with strategically focussed stakeholder analysis and the newly introduced monitoring, evaluation and reporting improvement framework.¹⁹
- § Work practices—The CMA may be able to further improve its work practices and to alleviate the high workloads as a result of its decision to bring forward an investigation of this aspect following a recommendation from the consultant. In

¹⁷ The consultant advised the CMA that the Social Change consultancy group offered training in this area.

¹⁸ Key contact people here are Kristy Howard at RRI, Cathy McGowan and Nerida Kerr.

¹⁹ It is recognised that this practice change in particular will require a change in the operating environment to provide sufficient time and flexibility for the CMA to apply these methods.



particular, having successfully exploited the 'low hanging fruit' approach, the CMA may be able to identify different strategies to apply that will not only extend practice change into new stakeholder groups but also reduce workloads. One area that clearly emerged from the live project as a more (resource) efficient approach than one-on-one consultation is working in groups. Training of staff in the most effective approaches of working in groups is likely to be highly beneficial.

- § Monitoring—The CMA may benefit from the suggestion that arose from the live project to monitor the implementation of innovative projects such as the EMS so that any issues can be quickly identified and addressed. (This idea would be easily accommodated in the North East's newly developed MERI framework).

The project potentially has had an impact on the CMA's capabilities in each of the areas of practice change listed above. In each case it is too early to claim that the live project has already improved capabilities but it has laid the groundwork and suggested possible ways in which the CMA could move forward. The process that was followed in most of these cases involved: (i) identifying an opportunity or shortcoming in the current process; (ii) discussing this opportunity or shortcoming with the CMA staff involved and/or with the SMT; (iii) preparing a discussion note or suggestion for consideration by the CMA;²⁰ and, when invited to do so, (iv) presenting some ideas on the suggestion to the SMT.

Throughout the project the consultant has communicated ideas and findings to the CEO, the SMT, the Rural Land Stewardship Coordinator and the National NRM Coordinator. This communication has been well accepted and there has been useful and informative debate about some contentious views of the consultant.

3.3.4 Learnings from the live projects for the Region

The EMS project has great potential but in its current form it lacks appeal and hence does not represent a good investment.

The potential of the EMS project lies in the fact that: (i) it is low cost; (ii) it can bring about fundamental attitudinal change; (iii) this attitudinal change can drive a whole series of changes in practices directly addressing some of the RCS resource condition targets; and (iv) these changes in practice are likely to be permanent. (One example of this process concerns efforts to achieve a minimum ground cover in autumn of 70% and it can be shown that this single target can address a range of other targets).

The weakness of the EMS project in its present form is that it will not be adopted (or even advocated by those that have participated in the pilot) because it offers the adopter little or no perceived benefit, it is complex, uses difficult terms and language, cannot be partially adopted and requires an extremely high level of prior training and education.

²⁰ See for example: Strategic focussing of stakeholder analysis; use of the logframe as a project design tool; pathways to change analysis; outcomes from the Practice Change workshop; and the 'straw man' for effective practice change and community engagement.



The live project revealed that the EMS participants are 'NRM elites' and/or 'learning junkies', with strong commitments to self improvement. They have done everything else and they want to keep at forefront of anything new. Nobody knows what proportion of the population fits this profile but it is going to be very small. This severely limits the capacity of an EMS approach if only because too few landholders will be willing to try it out.

Another weakness of the EMS project may be that it requires a high level of trust between the group and the facilitator. The live project showed that differences in satisfaction between different groups were also associated with the level of trust each had with the facilitator. In the two groups where there had been a successful prior relationship, trust was high and these groups were generally satisfied with the EMS process. In the group where there had not been successful prior relationships trust was low and there was a high level of dissatisfaction with the EMS process.²¹ If trust is a critical ingredient for success and if it can only be developed through prior contact, then the lead times and required prior investment to make EMS work become major constraints.

Part of the strength of the EMS is the group process that it uses which is both low-cost and potentially highly effective. Although it is clear that the EMS cannot be developed solely using group processes, it seems from the live project that the one-on-one elements can be limited and, to a large extent, the timing of required one-on-one inputs can be anticipated making scheduling easier.

The high potential of the EMS approach suggest that the CMA should make every effort to continue with this initiative. Based on the workshop with the Springhurst-Byawatha group it is likely that the complexity issue will be addressed and the issue of partial adoption could be overcome by taking the three step (Clean and Green) approach that the group suggested.²² The EMS still needs to overcome the problem of lack of incentive but if that could be solved it offers great scope for the North East. Since the question of incentive cannot be solved regionally, the CMA needs to collaborate with industry efforts to introduce EMS, perhaps working through the R&D corporations to piggy-back on their initiatives.

Innovative projects need to be carefully monitored.

The live project showed that innovative projects are likely to generate problems and opportunities and it is important that these are identified early so that appropriate remedial action can be taken. This process could become a standard part of the MERI framework by deciding at the start of the year that the innovative projects will need on-going evaluation by somebody independent although the evaluation should also involve the project manager.

²¹ It is recognised that there may have been other reasons for this group to be dis-satisfied including the possibility that this group was more advanced in its thinking about EMS and therefore were more demanding.

²² It would be important to get the views of the other groups prior to deciding that the Springhurst group's ideas were appropriate.



More time for and encouragement of reflection would pay dividends.

The live projects revealed some underlying tensions between what CMA staff wanted to see happen and what participants thought should happen.²³ The tensions are to be expected and are partly the result of the CMA having clear mandates for certain outcomes and accountability to achieve those outcomes. However, in some cases these tensions could be lessened by alternative approaches and it may help if CMA staff were given the opportunity to reflect on the tensions either with peers and/or social science specialists. In the absence of time for reflection it is likely that day-to-day business will mean these tensions are never resolved and lead to less effective communication and delivery of NRM programs.

Create opportunities to find common ground.

The EMS project and to a lesser extent the WAP project seek to achieve multiple outcomes—one set for the participant and the other for the CMA acting on behalf of the wider community. One certain way to recruit participants into NRM is to provide opportunities for them to meet their own goals at the same time as the CMA meets its goals. This win-win situation might not always be as rare or ‘pie in the sky’ as some might think. However, it is going to have to be the CMA that identifies the opportunities and this will require a mechanism for finding out just what sorts of changes the stakeholder groups or landholders are wanting to make—what is on their agenda? This suggests the need for a strategy of ‘getting to know the stakeholders and their interests’ as part of the on-going effort to work more effectively especially now that the low hanging fruit has been harvested.

Mount a continuing campaign to establish duty of care ethic.

The live project helped reveal the various pathways that people take to practice change and it suggested that for most people no one single pathway dominates. People make practice change decisions for a variety of reasons and for most the decision is the one that best meets their set of values and resources. If land managers act only out of narrow self-interest and the CMA and its investors are obliged to ‘purchase’ all the NRM outcomes, clearly there will never be enough money to go round. Anything that could be done to build upon the concept of duty of care that is inherent in some form or other in most people’s minds would be beneficial. If the social groups within the communities of the North East could be engaged to the extent that they fully embraced the NRM outcomes that the CMA was seeking, this would send a message to landholders that their duty of care to their own community extended to supporting the CMA activities.²⁴

²³ One tension was that the consultation process for WAP was time consuming and that the CMA could just make the recommended works mandatory and get on with the job. Another tension was that the EMS process had to follow ISO 14001 processes and so it was pointless considering alternative approaches.

²⁴ This is based on my belief that to a certain extent these social groups act as ‘gatekeepers’ and if they can be persuaded to ‘open the gate’ to the CMA then the traditional non-participants who are most influenced by these gatekeepers will follow their lead.



3.3.5 Learnings from the live project for other regions

The following learnings may be of relevance to other regions:

- § EMS projects in the form of the current national pilot project are unlikely to be widely adopted. However, if re-designed, they have the potential to address a range of NRM goals very effectively.
- § The North East CMA has a well-developed approach to delivery of river health improvements and other regions with similar resource condition targets may benefit from discussions with the CMA about their approach.
- § The approach that the North East CMA took to harvesting the low hanging fruit first (by working with landcare groups and other stakeholders who wanted to collaborate with the CMA) may be appropriate for some other regions. It should not be an all or nothing approach since there is also the need to build a basis for broadening the range of stakeholders subsequently.
- § Much can be learned by having an independent person looking at what is happening in your catchment and listening to what people are saying about the CMA and its processes and activities.
- § There is a need to bring people (social science) skills into the CMA to complement the environmental/scientific/engineering skills that most CMAs already have.
- § There is a need to take a long term view of skill development in the CMA staff and, in addition to providing a range of in-service training, it may be beneficial to consider mentoring and/or secondment of staff to other agencies. (There is a need for a national scale training program for CMA officers).
- § In regions where NRM work is directed towards generating outcomes that are mainly of benefit to those outside the catchment community, there will always be tensions between locally generated resource condition targets and those favoured by the investors. To resolve those tensions the CMA may need to: (i) be clear and transparent in explaining why those targets are favoured or included in the RCS or equivalent; and (ii) seek to establish cost-sharing arrangements to reward participants for costs incurred beyond those associated with their duty of care.

3.3.6 Learnings about tools and methods

- § Although most participants in NRM projects will say that one-on-one extension/education processes are the best, working in groups can also work very well and this is a much more cost-effective approach when it is carried out properly. This requires that staff are trained in processes for working with groups.

- § The EMS project seeks to achieve its outcome using only moral suasion and it would be much more likely to be adopted if it could incorporate some form of incentive along with some form of regulation.²⁵
- § In pursuit of good process and efficient use of scarce funds (particularly where most funding is tied to a project), some form of strategic focussing of stakeholder analysis, possibly along the lines of Appendix 9, provides a check that would be useful as part of project design.
- § There is a need to make full use of any available stakeholder analysis including the results of any related social research that may have been carried out by the CMA, its partners or by some other body. This points to the need to have better 'knowledge management' systems however I am not aware of any system that works well. There is a need to address this universal problem on a national scale. Efforts to address this problem as part of the live project were largely unsuccessful because it requires a much larger effort than we were able to provide.
- § There are mixed views about the adequacy of current project design processes in the CMA but it is my view that further improvement is possible. One of the factors working against good design is the institutional arrangement and the lack of flexibility that this arrangement allows. Even with this constraint, the CMA would benefit by applying a standardised project design process such as that offered in the logframe approach. It is essential that whatever process is used it also provides a basis for the monitoring and evaluation of the project.
- § The North East CMA has made very good progress towards developing a monitoring, evaluation and reporting improvement (MERI) framework that is practical, reasonably simple and therefore likely to be implemented. In an unusual reversal of the normal pattern, the North East CMA looks like having a first-class M&E system up and running before it has a first-class project design system in place.

3.3.7 Learnings for policy makers

The possible learnings from the live project of relevance to the investors are summarised below. (In addition, Appendix 10 uses the straw man for effective practice change to identify the policy implications for both the CMA and the investors).

- § By providing support for innovative pilot projects such as the national EMS pilot, the investors can contribute greatly to the work of the CMAs. Together, the investors and the CMA can learn from the experience and use this learning to develop further opportunities. This form of support is invaluable to the CMAs and should be extended.
- § The funding provided by the Commonwealth with its three year commitment and flexibility has led to much better process at the CMA level with the means now

²⁵ An example provided by one of the participants was that beef producers who had completed an EMS course should be able to mark a box on the National Vendor Document (NVD) showing that they had done so and that, by a certain future date, all beef producers should be required to complete the course.



existing to fund the strategies and sub-strategies that will lead to achievement of the RC targets.

- § At the state level, the layers of nested strategies (and sub-strategies) from the state level down to the region are now providing a reasonable basis for action plans and project activities that are contributing effectively to both state and regional strategies. A program approach (as discussed later in this report) could further enhance the interconnection.
- § The implementation of the state level strategies at the regional level can sometimes require that the CMA does some juggling to ensure close matches with the regional priorities. The potential exists to further improve implementation arrangements through even greater levels of collaboration between the CMA and DSE at the regional level in the matching of priorities and the choice of delivery methods. This collaboration would be even more productive if it were associated with the use of longer timeframes and indicative three year funding levels.



4 Overall Summary/Project Impact

4.1 Insights into stakeholder analysis

Over the eight years since the CMA was established its approach to stakeholder engagement has matured. Initially projects were designed with technical inputs only, largely in response to the various government policies and initiatives of the time. Progressively there has been a trend to more and earlier consultation at the 'whole of catchment' level. At the time of formulation of the current RCS, the CMA had devised a specific consultation strategy recognising that there were at least seven distinct social groups across the catchment.

This maturity continued with the development of a communication strategy in 2002 (about to be revised), the Community Engagement Policy in 2004 and the introduction of annual catchment community forums in the same year. The stakeholder analysis and community engagement that the CMA carries out has always been highly strategic in the sense that it was purposeful. For example, the stakeholder analysis and community engagement conducted for the RCS was catchment-wide and sought to include all whereas the stakeholder analysis and community engagement for its projects are narrowly targeted at specific groups or individuals. This approach has worked well but an argument can be developed that it is running out of steam because all the easy gains have been made—the low hanging fruit has been picked. These easy gains came from working with the landcare groups, the dedicated innovators and committed landholders with the land stewardship ethic.²⁶ Unfortunately these stakeholders probably account for 10% or a maximum 15% of the catchment population and they have taken all of the resources of the CMA to work with them up to this stage. Now that the 'easy' work has been done, the challenge is to reach the stakeholders beyond these 'usual suspects'.

The research proposition that we used in considering stakeholder analysis was 'the game you want to play should determine who you choose to play with'. Following this proposition, the project introduced the idea of a different form of strategic stakeholder analysis where the CMA was encouraged to identify those stakeholders with whom it should work. The concept was that for the next stage, the CMA should seek out and work with stakeholders who have the power to make a difference in terms of resource condition and who are well aligned to the CMA's interests through shared responsibility or interests. This approach offers considerable potential for the CMA at its current stage of maturity. It could be used to broaden its base of participating landholders by recruiting a different and more powerful type of landholder. This could serve as one leg of the three-legged stool representing a new strategic approach by the CMA to address its workload problems and to further improve its effectiveness.²⁷ The project has done no more than introduce this idea to the CMA and to build it into the

²⁶ Note that this was not the case for all projects. For example, nearly all the waterway management projects worked with whomever they needed to work with to achieve the improvement being sought.

²⁷ The three legs of the stool are recruitment of new and powerful stakeholders; piggy-backing on other initiatives; and becoming more pro-active. See section 4.7



suggested tools.²⁸ If the CMA is to adopt this approach it will have to find funding to support such strategic analysis outside of normal project funding and in advance of project design. Implicit in this approach is the idea that the stakeholder analysis will help identify the agendas of the stakeholders and that this will need to be known in order to design projects that can meet both the CMA's objective while contributing to the stakeholder's objectives.

4.2 Insights into NRM Planning Logic

The NRM planning logic is well understood within the CMA and it has been largely put into everyday practice. Almost all NRM initiatives combine elements of on-the-ground works and capacity building and most would benefit from (but often are not supported by) some institutional change. We think that it is important that the capacity building planning logic is seen as part of and not a replacement for the range of actions that need to be taken to achieve NRM outcomes. In particular, the change in the operating environment (or institutional change) is of paramount importance.

The activity that takes place as a result of application of the planning logic is not well understood in the broader community. Some of those who are actively involved in landcare regard expenditure on anything other than works (or materials) a waste of time and money. Those who view NRM work as 'the government's business' cannot understand why they bother with plans and support for landholders.

The NRM planning logic created some problems for the CMA (and all CMAs across Victoria) when it did not adequately define Management Action Targets (MATs) and indicate what they should look like. As a result, the CMA has had to deal with a range of different types of targets and this is still being resolved.

There were a number of incidents cited which suggests that the investors' support is not always well-aligned with the NRM planning logic in the area of capacity building. Some of the informal messages that seem to be coming from the investors suggest a degree of impatience with expenditure on anything other than 'works' now that the regional funding model has been in place for several years. It should also be noted that investment for capacity building and community engagement goes well beyond the one and three year time horizons for funded projects.

There are also suggestions from the CMA that the investors' reporting requirements are unnecessarily detailed and too much focussed on lower order output indicators rather than higher order outcomes.

The NRM planning logic does not seem to acknowledge the fact that the change process needs to build on and be consistent with the aspirations and interests (not just NRM related) of the community and individuals. And perhaps as a result, the CMA has not been spending time trying to connect with the community at this level to gain their support.

²⁸ See Appendix 9.



4.3 Insights into tools and processes

4.3.1 Catchment Strategy and Investment Planning

The tools and processes that the North East CMA uses have evolved in response to the investor's needs and the CMA's own experience. The majority of attention has been devoted to planning and investment tools and relatively little to delivery tools and processes. This reflects the attention given to planning by the investors and the fact that most of the delivery is actually managed by the partner agencies rather than the CMA.²⁹ Although there have been some informal efforts to share ideas and experience about appropriate tools amongst the staff in the CMAs, this does not appear to have been developed to the extent that it could have been. As a result, there is probably a lot of unnecessary duplication of effort across the CMAs.

After two rounds of RCS planning the North East CMA has developed a robust approach that seems to have worked well. A particularly useful feature of the approach was the period of review of the achievements of the past RCS and the formulation of a vision for the catchment at this stage to guide the development of the next RCS. The RCS as currently prepared is all about targets and broad strategies and it does not include any indicative investment plan. If it were to include some order of magnitude of the investment requirements over its five year life it would place the investors in a better position to start to see how to allocate funds at the regional level at a later stage. This approach would help focus the attention of the CMA on investment efficiency and help them take the big picture or program view as to how they should tackle the task. It would also mean that the RCS was more closely linked to the reality of day-to-day, year-to-year operation of the CMA (although under the CALP Act the RCS must address whole of catchment issues for the region rather than tailoring investment priorities according to set external funding streams).

The investment planning (RCIP) process that has been developed in the North East is comprehensive but (probably necessarily) complex. The investment planning cycle extends over a period of 12 months but it offers the means to ensure that all investments are carefully targeted on the RCS targets. The way the RCIP is operated means that it serves as a 'learning loop' for those submitting project proposals because they are able to find out why their bids were not accepted.

4.3.2 Implementing the RCS

Although there are exceptions in some operational areas,³⁰ we came to the view that the CMA tends to be: clear about their targets and where they want to go; clear on the strategies and sub-strategies that they intend to use to get there; but relatively less clear as to the broad programs and detailed actions needed to implement the strategies. There are three likely causes of this shortcoming as discussed below.

²⁹ In the waterway management area where the CMA does have responsibility for delivery, the WAP has been reviewed and revised indicating a robust process is in place to improve efficiency.

³⁰ River health, salinity and wetlands are exceptions.

- § Firstly, and most importantly, the funding arrangements mean that the CMA is obliged to operate with short-term projects rather than long-term programs. The CMA does not develop programs since its funding is largely project by project. The consequence of this is that the CMA have to develop projects quickly each year for consideration for the next year's budget. This precludes the opportunity to develop broad programs which is the most appropriate way to tackle an issue such as NRM.
- § Secondly, again because of funding arrangements, the CMA focuses its effort on developing simple action plans rather than robust and comprehensively designed projects. Since they are working to annual budget cycles, the CMA responds to the investors' need to get results on the ground quickly so they devise an action plan to define the on-the-ground elements of the project and use this to apply for funds. If funds are approved there is even less time left in the annual cycle so the action plan is simply implemented 'as is' without further refinement. The short time period and uncertainty as to whether a project will be funded thus leads to a compromised design process. Project design is further compromised by the fact that the investors are still often 'activity driven' and would prefer to see a list of activities to fund over the life of a strategy rather than a sub-strategy or process that would generate certain outputs over time.
- § Thirdly, and largely as a consequence of the points above, the CMA does not apply rigorous program and project design processes that would allow them to ensure investments were used with the highest levels of efficiency. Because there is little or no scope to use such processes the staff have not been trained in their use.

The investors could improve the efficiency of NRM investments by moving to fund multi-year programs rather than projects and by specifically supporting CMA activities in stakeholder analysis, community engagement and thorough program and project design processes. This would encourage the CMAs to take a more systematic, program level approach to implementation planning rather than be locked into the project and activity level approach that they now are obliged to follow.

4.3.3 Knowledge management

The CMA relies heavily on the personal knowledge of its staff and there is almost no capture of the collective 'institutional wisdom' of the CMA. This is a reflection both of the lack of an appropriate system to capture the nuances of the information and the lack of time to document experiences. Whereas in the past agencies like the Department of Agriculture in Victoria had well developed 'mentors' and encouraged younger staff to spend time with more experienced staff, this no longer seems possible. Since this shortcoming is probably universal, there is merit in considering a national approach both to information capture and retrieval and to mentoring across CMAs or their equivalent.

4.3.4 Delivery Tools

Most the CMA activities combine the provision of works, incentives and education. For all works the CMA always seeks to negotiate cost-sharing since they have found that any activity that is 100% funded is unsustainable. The cost shares that are applied are



pragmatic and they help to establish the duty of Care ethic although much more needs to be done to support this ethic. One particularly well advanced approach used by the CMA is the Landholder Partnership Agreement which is negotiated with all landholders receiving support under a WAP.

The CMA is paying greater attention to the provision of incentives in innovative ways as evidenced by its introduction of the River Tender approach where riparian landholders bid to receive funds for riparian improvements on their land. The driver of such innovation is access to un-tied funds and investors could foster innovation by providing more of such funds. The CMA is also making increasing use of regulations, particularly in waterway management and has found this to be an effective tool when used appropriately.

The delivery tools used in education or moral suasion have included the full range from one-on-one through working in groups. The support of Landcare has been crucial in working with and through a group of stakeholders who are committed to improving resource condition. Further growth of this group will depend on bringing in new faces and perhaps the best prospects will come from efforts to link productivity improvements to environmental objectives. Programs such as NLP and Envirofund are critically important in this regard.

One of the findings of this project is that working in groups can be highly effective and offers much better return on investment than one-on-one approaches. The EMS project showed how much impact that self-assessment tools can have on participants' thinking and the CMA is looking to use this approach with urban landholders if it can obtain investors' support.

In many cases, the methods used and the budget allocated by the CMA's partners drive the choice of tools.

The use of a communication strategy continues to evolve and the CMA is currently totally revising its approach. There is an opportunity to use a relatively broadscale communication strategy to foster and underpin the linkages between the CMA and the grassroots community and to help foster the progressive acceptance of the concept of duty of care. A first step to the recruitment of a broader base of participants may be to recognise and celebrate the contributions that many landholders are already making to sustainable NRM. The communication strategy could play an important role in this regard.

4.4 Returns to investing in people

4.4.1 Relative value of investment in people

There is no objective information to show what proportion of the investment in the North East has been directed to 'people' in comparison with on-ground works and administration.³¹ My assessment is that in the water and biodiversity areas most of investment has been in works and incentives for works (fences, trees, replacement

³¹ It was not even possible to dissect out the 'people' component from the 2005/6 RCIP



watering points etc) and in the land area most of investment has been in people (landcare support, EMS, whole farm planning etc). Apart from the investments made through the CMA, there have been significantly larger investments made by landholders and landcare groups in support of these public investments but these are also unquantified. Given that almost all the community investments are essentially in the form of contributions-in-kind for works and assuming that these are probably 5-7 times larger than the public investments,³² it is my assessment that the overall investment in works has been two to three times larger than the investment in people. It is also my judgement that the investment in people also generates a much larger multiplier in terms of the landholder/community investment than does investment in works.

Although the share of investment allocated to people versus that allocated to works is of interest to the investors and the wider public, the reality for the CMA is that the balance between the two is not so much a deliberate choice but rather a reflection of opportunities. The fact that most of the land is privately owned means that the opportunity to invest in on-ground works is limited. Landholders have to give their consent before any works are carried out on their land and they will only do so if they have the attitudes, knowledge, skills and support needed to motivate them to do so. Investment in people brings about those changes (over a considerable time period) and hence the opportunity to invest in on-ground works is limited by the prior investment made in people.

4.4.2 How Investment in People Improves Practice Change

The three drivers of practice change are markets, regulation and moral suasion or education. In general, the CMA can do little or nothing about the markets or regulations and so it relies on the third instrument or driver. In the absence of any efforts to change landholders attitudes, knowledge and skills or to put in place regulations that mandate a particular practice, it is my view that practices generally will not change at all. It is certainly true that changes in attitudes alone will not lead to practice change and so ideally all three instruments or drivers should be used together to bring about the desired change. However, the reality is that it is difficult to create markets and market instruments unless somebody is prepared to buy whatever it is that you are selling. And politically it is difficult to go far towards regulating practices on the land or elsewhere in Australia. This leaves investment in people (moral suasion or education) as the pragmatic tool of choice.³³

Investing in people through projects like EMS, whole farm planning, Beefcheque etc provides the opportunity for creating awareness, interest and facilitating trialling and group discussions (thus learning about) alternative approaches or practices. Such projects provide incentives for participants to try out new practices on a small scale and remove some of the risks that such practice change can bring including peer criticism. The projects enable learnings to be shared within and across groups and this expands

³² Based on findings from the NHT reviews.

³³ This is not to say that more aggressive approaches such as those implicit in Community Based Social Marketing do not deserve greater attention than they are receiving at present in NRM work.

the numbers of landholders who are aware of the possible practice change. Projects like these also provide an entry point for the CMA into initiatives of other agencies and this has the effect of building a wider coalition of support and helping the CMA to extend its reach and the appeal of its goals to new stakeholders. This in turn mobilises much larger investment from landholders since they are committed to investment in the other initiative (e.g. farm productivity improvement through Beefcheque). And importantly, it helps ensure sustainability of the practice change by embedding it in mainstream farm practices.

4.4.3 The investment balance for the North East CMA

In the absence of any hard data on the investment balance of the North East CMA, my estimate is that for the 2005/6 RCIP about 35% of investment is being allocated into people and 65% into works or incentives. A further guess is that, prior to this year, the balance might have been 25-30% pure behaviour change/people investment. The CMA management could not offer any better estimates since there is no attempt to breakdown the investment in this way.

4.5 Opportunities to improve regional delivery of NRM investments

The regional delivery model could be improved by the following changes:

- 1) Investors could help establish an even more supportive operating environment by:
 - a) Asking regions to provide indicative five year investment requirements with the RCS and then providing each region with an indicative investment allocation (across all initiatives or programs) for at least three years as a basis for more detailed program planning by the regions;
 - b) Encouraging and eventually requiring the regions to prepare three year programs in support of the RCIP and ensuring that all mainstream projects fit within those programs;³⁴
 - c) Requiring regions to report on outcomes rather than activities or more generally on progress towards resource condition targets;
 - d) Providing opportunities for more dialogue with the regions particularly in relation to the investors' longer term expectations, goals and roles for the community, local government, the CMAs and other key players in regional NRM; and by
 - e) Providing specific support for more comprehensive program and project design processes (including stakeholder analysis and community engagement and wider communication) by:
 - i) moving away from a requirement for activity planning;
 - ii) moving away from the need to operate within annual planning cycles; and by
 - iii) ensuring adequate funding is available to meet the costs of these activities.

³⁴ Some flexibility is desirable to allow new initiatives to be developed in response to new needs or opportunities.



- 2) Investors could also encourage and facilitate through funding professional development of CMA staff through support for an accredited post-graduate level certificate;
- 3) Investors could encourage and facilitate support for improved knowledge management in the regions along with a national level system of peer support linking peers across the regions with designated mentors;
- 4) CMAs could make greater and more strategic use of partnerships by identifying which entities they want to partner and seeking common interests.

4.6 Key implications for NRM Policy

- 1) Stay the course—the regional NRM delivery model and the NRM planning logic is working and the investments are generating worthwhile results. Improvements are being made and more are possible but none of the shortcomings warrant abandoning the model.
- 2) Demonstrate trust—set hurdles for the CMAs but progressively allow more flexibility in pursuit of agreed outcomes and leave the means of delivery for the CMAs to decide. As far as possible provide clear statements of priorities, indicative investment allocations and allow regions to allocate across the (single) investment package.
- 3) Recognise that the operating environment drives the regions—review the settings periodically to ensure that the (formal and informal) signals that are coming through to the regions are those that will deliver the best NRM outcomes.
- 4) Demonstrate confidence in need to invest in people and process—Resist pressures to bypass people.
- 5) Expand the means to link NRM to productivity—Support efforts to widen the participation in practice change to those who have remained outside the system to date.

(Note also the suggestions for NRM policy provided in Appendix 10 in relation to effective practice change and community engagement).

4.7 Ways to assist the region improve effectiveness of NRM investments

4.7.1 Moving towards a new strategic approach

At this stage of its evolution the major need of the North East CMA is to move towards a new strategic approach to further improve its effectiveness and to help address its pressing workload problem. The approach suggested has three elements: (i) recruitment of new and powerful stakeholders; (ii) greater use of piggy-backing on other initiatives; and (iii) becoming more pro-active in deciding where to operate.

The recruitment of new stakeholders is needed because most of the gains have already been made with the existing participants and now is the time to broaden the base. This does not mean abandoning those existing participants but rather expecting them to continue progressing through the established channels. The process of recruitment of new stakeholders might involve a more formal approach of deciding which groups have



the power to contribute towards the RCS goals and then seeking out those groups and finding common ground to work with them.

Greater use of piggy-backing on other initiatives is suggested not only because it is a way of 'starting off from where the other stakeholder group is at' but also because it allows the CMA to work much more strategically. What is envisaged here is that the CMA finds ways and means to have its goals incorporated into the goals of on-going initiatives such as those of industry (both primary, secondary and tertiary), R&D corporations, other partners, local government, community groups, schools, water authorities, tourist organisations, etc.

The suggestion that the CMA should become more pro-active is based on the expectation that the investors will change their approach so that the CMA is encouraged to operate at a program level rather than a project level. Once this happens it will be up to the CMA to identify where it wants to operate (and with whom) rather than continuing to largely react to funding opportunities generated at the project level. Clearly the CMA will not be able to operate pro-actively unless it is given the means to do so by the investors.³⁵

4.7.2 Revising the communication strategy

The CMA is already in the process of revising its communication strategy and this project has identified three areas where a revised communications strategy could contribute to improvement in the overall effectiveness of the CMA. These areas are as follows:

- § Helping to 'recruit' the grassroots community groups by being better understood and by showing how the CMA fits into the big picture as seen from the perspective of the community groups;
- § Helping to reach out to and 'recruit' some of the traditional non-participants by demonstrating the linkages between their interests (in productivity) and the CMA's interests (in NRM outcomes) and by identifying vehicles which could be used by this group to pursue both sets of objectives; and
- § Helping to progressively develop and extend the ethic of duty of care by building on the existing base and by creating a positive attitude to doing good things for others.

4.7.3 Continuing the roll-out of current initiatives

The CMA needs to ensure that the excellent policies and principles embedded in its Community Engagement Policy and its Monitoring, Evaluation and Reporting Improvement Framework are fully supported and implemented at all levels of the agency.

³⁵ There is a parallel here with the way that the primary industry R&D corporations moved from the grants-based project funding model to a strategic program based model responding to identified industry needs.



4.7.4 Supporting Staff

The CMA needs to continue to invest in and support its excellent staff through its current efforts to address workloads and through future efforts to build further skills and broaden their experience. Opportunities for further formal training will hopefully arise out of this project but at an informal level the CMA may want to investigate the scope for secondment of staff to other CMAs or NRM bodies, organising of conferences and identification of mentors.

In addition to the suggestions above, Appendix 10 has included a number of specific suggestions of the ways in which the CMA could improve the effectiveness of its efforts to bring about practice change.



Appendix 1. Analysis of Power and Influence over NRM Activities

NRM Functions and activities	Groups with a level of Control	Groups with a level of Influence
Funding to the CMA	Commonwealth Investors State Investors	CMA Local politicians
Regional Catchment Investment Strategy	CMA	CMA Advisory Committees
Regional Catchment Strategy	Investors (State & Fed) CMA	Community participants Technical Advisory Panel
Community engagement strategy	CMA Board CMA Senior Mgmt Team	Investors CMA Advisory Committees
Landcare Strategy	Investors (State & Fed) CMA	Landcare Advisory Ctee Landcare Groups
Program & project design	CMA & Partners	CMA Advisory Committee Project Steering Groups
Program & project implementation	CMA & Partners' staff, consultants, contract officers	CMA Advisory Committee Project Steering Groups
Public land management	State government Parks Victoria, DSE	CMA
Crown riparian land	CMA State government (Land Victoria)	
Roadside vegetation	VicRoads Local governments	Ratepayers Landcare groups
Private riparian land	Landholder State government	CMA
Remnant vegetation on private land	Landholder Local government	CMA
Soil management	Landholder	CMA Local government
Land development	Local government State government	CMA



Grazing management	Landholder	CMA & partners Neighbours/local community
Weeds & pest animals on private land	Landholder Local government	CMA & partners Neighbours/local community Landcare groups
Weeds & pest animals on public land	Land manager/State government	Neighbours/local community
Awareness of NRM issues	Land manager/owner	Family views/ethic Community views CMA & Partners Investors Media Business contacts
Attitudes to NRM issues	Land manager/owner	Family views/ethic Community views CMA & Partners Investors Media Business contacts
Knowledge of NRM issues	Land manager/owner	CMA & Partners Business contacts Education & training institutions
Skills in managing NRM issues	Land manager/owner	CMA & Partners Education & training institutions
Changes in behaviour in un-regulated activities	Land manager/owner	Community views CMA & Partners
Changes in behaviour in regulated activities	Regulatory agency eg Local government, CMA, EPA, Land Victoria	

Appendix 2: Requested allocation of funds for 2005/06

Program Area	Total	RCIP Project	cost of Projects	% of Total
Biodiversity	1,137			18.2%
		Native Vegetation Management	887	
		Threatened Species Protection	250	
Water	3,340			53.5%
		River Health in the Ovens Basin	702	
		River Health in the Upper Murray Basin Basin	809	
		River Health in the Kiewa Basin	872	
		Wetlands	85	
		Irrigation Management	230	
		Waterwatch Education Project	142	
		River Tender	500	
Land	1,885			30.2%
		Weeds	473	
		Wild Dogs	689	
		Dryland Salinity	243	
		Soil Health and Conservation	338	
		Farm Forestry	42	
		Pest animals other than wild dogs	100	
Landcare, Ag Industries and Indigenous Support	1,020			16.3%
		Landcare support	805	
		Ag Industries	100	
		Indigenous Support	80	
		Rural Land Stewardship (including EMS)	35	
Total	6,245			100.0%

C:\Data\NRM Practice Change\Reference material\Budget\[Summary of Budget.xls]Funding Summary (2)



Appendix 3: Practice Changes in the Wider Community as identified by participants at workshop

Land Group—Practice changes

- § Local area planning
- § Whole farm planning
- § Soil health improvements—more lime; research/education; better understanding of soil biology; improved grazing practices (but not enough)
- § More perennials in last 15 years (Tree planting, LPIS and Salinity Program)
- § Dairy farmers planting annuals (hybrid ryegrass etc)
- § Bush Tender — Valuing ecosystem services (Market instrument)
- § Change in pasture base both positive and negative
- § More lifestyle farms with impacts on agriculture / land values
- § Increasing productivity per hectare according to ABS data
- § More intensification in some areas
- § Protection of bushland through extension, policy and education tools
- § Improved water use as evidenced by: use of drippers; Keyline systems; soil water monitoring; more farm dams (reduced in size and better locations – not in drainage lines); off-stream watering points for stock
- § Water reform
- § River Tender
- § Fencing to land type / capability
- § Remnant vegetation protection
- § Phasing out of stubble burning
- § Reduction in extent of (inefficient) flood irrigation
- § Establishment of firewood plantations

The themes that seem to be coming through were:

- § More planning both local area and whole farm planning
- § Greater use of practices that are both more productive and sustainable environmentally (perennial pastures, better grazing practices, farming to capability, improved use of water)
- § Greater use of incentives to protect / conserve environment (Bush Tender, River Tender, LPIS and CORIS)

Biodiversity Group—Practice changes

- § More new vegetation in the landscape (as evidenced by aerial imagery, nursery activity, seedbank activity, project reports and fencing)

- § Existing vegetation is declining in quality (OT7 is not being met) (as evidenced by veg quality assessment)
- § Awareness of information available, people have biodiversity skills and knowledge.
- § Recognition of value and need to use local seed (as evidenced by Landcare, nurseries and seedbank)
- § Change from traditional rural social economic demographic which is a decline in the agricultural sector growth in industrial/urban/hobby farming. Harder for farmers to do NRM
- § More people involved in NRM who have off farm income
- § Threatened species still declining (as evidenced by individual studies, monitoring of habitat and threatening processes)
- § Increase in the number of people maintaining native vegetation
- § Weed impacts increasing (What practice change is needed?)
- § Pest animals increasing.

The themes that seem to be coming through were:

- § Success in expanding area of new vegetation, improving biodiversity knowledge & understanding and participation.
- § Falling short of biodiversity targets—Threatened spp, weeds, pests, quality of vegetation.
- § As demographic change, different people now involved in biodiversity conservation efforts.

People Group—Practice changes

- § Increased fear of government regulation
- § Some improvement in knowledge but specific, not general community
- § Agency focus too narrow eg Beefcheque
- § No coordinated agency approach
- § Disconnect between landholders' priorities and NRM investors' priorities (as evidenced by Pest plants and animals)
- § Linking NRM priorities to social and economic pressures (eg linking water and health issues)
- § Landcare networks a positive development (as evidenced by Landcare having a positive image)
- § Increased environmental awareness (as evidenced by more grass in paddocks)
- § More recognition of the relationship between good NRM and productivity (as evidenced by activities under NLP)
- § Local government more involved in NRM projects (as evidenced by change from 10 years ago)



- § Leadership program involves diverse cross-section of the community (eg 100 graduates of the program exposed to NRM networks).

The themes that seem to be coming through here are:

- § Success in increasing general awareness of environmental issues in community, local govt
- § Only part of the community is engaged in part because of fear of government regulation, disconnects in priorities, narrow focus of programs.
- § Linking of NRM priorities to social and economic (productivity) priorities needs to improve.



Appendix 4: Pathways to change

1. Seeking productivity improvement

- § Declining yields/outputs & increasing costs plus deteriorating resources plus drought effects resulting in unsatisfactory returns
- § Participation in learning/sharing programs e.g. Prograze, Target 10, Bestwool, SGS
- § Business planning leading to Whole Farm Plans
- § Re-arrange farm to 'farm to capability', changed layout, shelter belts, grazing systems, watering points
- § Coincidentally achieve business & environmental outcomes
- § Discover non-business benefits – environment, social, spiritual
- § Spur to deeper, wider changes in management e.g. 'holistic', organic, permaculture, enterprise change, EMS

2. Seeking environmental sustainability

- § Interest in nature/bushwalking — birds, rare flora, threatened habitat
- § Concern about degradation – of habitat, loss of biodiversity, wetlands, soil health, or amenity (gullies, riparian veg etc)
- § Participation in landcare group and/or nature groups to access resources & know-how
- § Restoration or re-creation of habitat on farm or public lands (Friends of parks, wetlands,... etc)
- § Participation in creation of biolinks, green corridors, roadside vegetation etc
- § New activities on own holding eg alternative enterprises – farm forestry, farm stay, lower environmental impact activities

3. Seeking social connections

- § Strong sense of community
- § Strong local landcare movement with cross-sectional support across community
- § Links with other community organisations – schools, halls, reserves, cemeteries
- § Participation in community driven projects with environmental elements – revegetation, amenity improvements, school plantings, Waterwatch
- § Access to planting materials, know-how
- § Spillover onto own land management practices

4. Seeking self interest

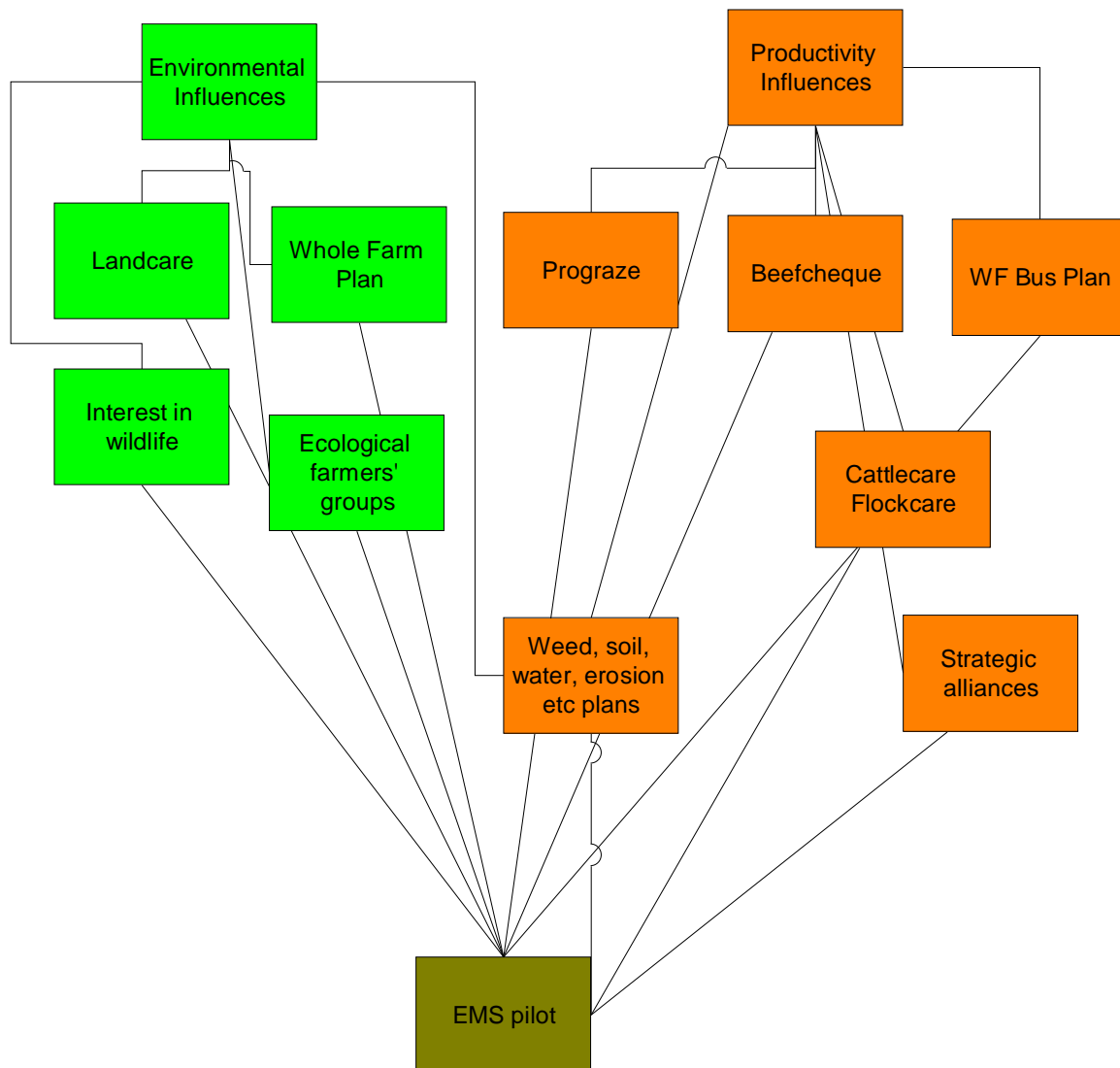


- § Participate in project to obtain support for own objectives (weed control, rabbit control, fencing gullies, planting windbreaks, reducing stream-side erosion, perennial pastures, improving amenity & land values)
 - § Required membership in landcare or interaction with NECMA and/or DSE, DPI or Parks Vic
 - § Learning from contacts and (later) learning by observations of effects of the project
 - § Access to other learning opportunities – business planning, WFP, technical training
 - § Expanding practices beyond the project – pastures, shelter belts, weed control, fertiliser use, farming to capability, etc
5. Complying with regulations
- § Compulsory participation in noxious weed control, riparian land management, retention of native vegetation, farm effluent management, Chemical Users' courses, quality control systems, CFA minimum skills training etc
 - § Exposure to new approaches, people and ideas through courses, training
 - § Increased awareness of environmental impacts from farming
 - § Changes in target activities (sustained if monitored)
 - § Consideration of other changes??



Pathways to EMS

Based on responses from EMS participants interviewed as part of the Live Project





Appendix 5: The NRM Practice Changes that are still needed

Changes needed in Land practices and support services

- § More whole farm / Business Plans. Link such plans to all incentive programs.
- § Valuing people and helping them develop their decision making skills. Need to be able to make more accurate business and family decisions. (Education and training)
- § Improved grazing and feeding systems (especially during dry and wet periods)
- § Legal enforcement must happen through regulations (not all changes need to occur through incentives, extension and social shifts)
- § A more strategic approach to extension so that it reaches all sectors and stakeholder groups of relevance to the RCS
- § Broadening of communication messages and target groups to encourage a 'sustainability focus' for Urban / Region Areas — it is not just a 'farming' or 'agricultural' issue.
- § Linking agriculture to healthy ecosystems
- § Encouraging better planning for and understanding of the Australian Landscape

Changes needed in Biodiversity practices and support services

Essential changes

- § Increased use of biological control (e.g. control of blackberries)
- § Improved extension tools to take account of changing social-demographic composition of communities (e.g. increasing numbers of landholders who are not primary producers)
- § Payments of landholders to manage their bush for biodiversity/conservation.
- § Better tailor the conversations and incentives to the specific group of landholders that are being targeted.

Desirable changes

- § Increased study of the science of species under threat to enable informed management to conserve these species.
- § Tax incentives for non-primary producers to invest in conservation management.
- § More staff involved in NRM management.

Changes needed in People practices

- § Investment in community leadership
- § Educating urban populations of the economic and social realities of agricultural communities (Could be hands-on e.g. community exchange).
- § Understanding changing communities.
- § Understanding interactions between old and new (types of landholders)
- § Facilitating new ways of dealing with demographics (e.g. Leasing land)
- § Conversation approach (Communication)



- § Real. Joined up government (e.g. Eskdale water committee. Towong Shire Council's Drought Response)
- § Link NRM actions to other community motivations. (e.g. Eskdale water quality, neighbourhood based).
- § New approaches to planning and managing public land (NRM issues) (e.g. Tallarook Project DSE Greg Pell, Seymour)
- § Land management incentives. (Bush Tender, CORIS, RLS). Valuing community.

The common practices that are needed seemed to fit into four types (It was pointed out that each of these were really practice change tools):

- Improving (and sharing) the knowledge base concerning both NRM and its interactions with other social and economic and institutional issues. *E.g. Developing a better understanding of the Australian environment.*
- Improving delivery mechanisms for dealing with NRM (and other) issues. *E.g. Weed action plan not understood or read; conversations needed; start from where community is at; build trust, pride; deal with perception that there is little on-ground action c.f. more plans and strategies; simplify funding applications; too much emphasis on reporting on short term outputs not outcomes.*
- Addressing government policy shortcomings. *E.g. Accountability requirements both up and down are driving actions; there is a disconnection between (some of) the goals of the communities and those of government.*
- Providing incentives for action. *E.g. Payments for ecosystem services; tax incentives for non-primary producers*



Appendix 6: Changes in the CMA

<i>Changes in CMA Practices</i>	<i>Past</i>	<i>Current</i>	<i>Future</i>
Strategic focus in planning	<p>Driven by technical interests of state agencies</p> <p>Retro-fitted to existing programs, priorities</p>	<p>Genuine efforts to engage wider community views</p> <p>Asset/threat based</p> <p>Combined with Technical Panel</p> <p>Driven by planning focus of Commonwealth</p>	<p>Need for clarity on empowerment/power sharing</p>
Community Engagement	<p>Inform only</p>	<p>Driven by CE policy and principles</p> <p>Have confidence in transparency – why are we engaging</p> <p>Roll out just starting with trial projects but benefits not yet evident</p>	<p>Need for training/leadership to embed in daily practices and approach</p> <p>Start from community's own agenda</p>
Stakeholder Analysis	<p>Intuitive, individualised, uneven and undocumented</p>	<p>Program/project or issue driven</p> <p>Some in-depth analysis, professionally conducted</p> <p>Still largely un-documented and institutionally in-accessible</p>	<p>Strategic assessment of where to apply but broadening of stakeholder coverage</p> <p>Improved access to results of analysis</p> <p>Upgrading of skills</p> <p>Appointment of social scientist</p>



<i>Changes in CMA Practices</i>	<i>Past</i>	<i>Current</i>	<i>Future</i>
Key Partnerships	Assumed and accepted Largely un-negotiated, unclear and often un-equal	Recognised and valued Negotiations are starting Not always equal power	Complete the negotiations (Operating Agreements) Embed fully into practices and review regularly Broaden with new partners
Investment Planning	Largely driven by investors Little strategy or discretion evident	Thorough, collaborative process but protracted Strategic – looks for contributions to RC targets Objective, draws on data In-built learning loops	Strengthened with data on relative performance of different investments Simplify and contract (shorten) the process
Funding	Uncertain, often late, short term; Completely tied to programs/projects no discretion	Greater certainty, more timely Commonwealth longer term, more flexible	Longer term for state funds and greater flexibility
Communication	Designed to inform on as-needs basis Narrow target audience	Purposeful, based on strategy but not integrated, still spasmodic Informed by facts about audience's views/interests Wider audience with differing messages	On-going accompaniment to other initiatives especially community engagement Professionally designed and managed



<i>Changes in CMA Practices</i>	<i>Past</i>	<i>Current</i>	<i>Future</i>
Project Design	Technical focus, not multi-disciplinary	Varied approach depending on project and project manager Not easily linked into reporting or M&E frameworks	Agree on standard approach across all projects Linked to M&E and reporting framework Supported by training
Monitoring and Evaluation	Rarely planned at outset, retro-fitted	Varied approach depending on project and investors' requirements Difficult to integrate across programs or RCS Currently nearing end of formulation of new approach Monitoring, Evaluation and Reporting Improvement (MERI) Framework	Incorporate the MERI monitoring, evaluation and reporting framework across all activities Supported by training
CMA Board	Not originally skills-based, learning by doing Strong Implementation Committees (hands on)	Skills based and policy driven with on-going strategic focussing Strong leadership in strategic directions, deliberately less hands on	Stronger linkages with partners including cross-participation in meetings/committees Better communication and engagement—including more direct 'kitchen table' meetings



<i>Changes in CMA Practices</i>	<i>Past</i>	<i>Current</i>	<i>Future</i>
CMA Operations	Practices carried over from former agencies	<p>Increasing professionalism, strategic focus in planning, responsiveness to investors, high accountability</p> <p>High workload limits trialling of alternative delivery modes</p>	<p>Encouragement of alternative delivery modes</p> <p>Stronger linkages with partners/peers</p> <p>Package of staged professional development</p> <p>Greater time for reflection and learning</p>



Appendix 7: Questionnaires for Live Project

EMS Project —Telephone interview questions

1. What made you decide to get involved in this project?
2. What has worked well with the project? Why do you think that was?
3. What difficulties have you experienced with the project? How were they resolved?
4. Has the project turned out the way you expected? If not, what unexpected things happened?
5. Do you think that anybody else has or will benefit/ed from your involvement in the project? (Who do you talk to about your experience with the project?) How do they view the project?
6. With the benefit of hindsight, what would you suggest changing in the project? Why change these things?
7. What do you feel you have learned from the project? How did that learning happen?
8. Were there any special moments when you felt you were making a big step forward in understanding EMS?
9. What are you doing differently now on your place than when you started this project? Why ? or Why not?
10. What are the main things you would like to change on your farm? What is stopping you make this change?
11. How would you describe your primary concern/interest in farming: A— It's a business; B—it's a lifestyle; C—I like to look after the environment; don't offer this one but D—all of those
12. What do you do/run on your place? How long have you been farming?
13. Do you have any other comments you would like to make about the project?

Profile

Landcare member		
Implementation Ctee member		
Enterprise		
Prograze		
WFP		
Business Plan		
Weed plan		
EMS action plan		
Cattlecare/Flockcare accredited		
LPA accredited		
Years farming		
Main interest (A, B, C or D)		
Supportive of EMS		
Happy with EMS process		
Learnings		
Practices changed		



Things want to change on the farm		
Barriers		

WAP Project —Telephone interview questions

1. What made you decide to get involved in the Reedy Creek WAP? What do you want to get out of your involvement?
2. What has worked well with the project so far? Why do you think that was?
3. Have you experienced any difficulties with the project? How were they resolved?
4. Is the project turning out the way you expected? If not, what unexpected things happened?
5. Do you think that anybody else has or will benefit/ed from your involvement in the project? (Who do you talk to about your experience with the project?) How do they view the project?
6. With the benefit of hindsight, what would you suggest changing in the project? Why change these things?
7. What are the main things you would like to change on your farm? What is stopping you make this change?
8. What do you do/run on your place? How long have you been farming?
9. Do you have any other comments you would like to make about the project?

Profile (As for EMS)

Questionnaire for Local Government.

1. What do you see as the three critical natural resource management issues for your local government area?
2. How are you addressing these issues?
3. In what ways does your agency currently interact with the North East Catchment Management Authority?
4. What if any changes would you like to see in your interactions with the North East CMA?
5. Do you have any other comments you would like to make concerning natural resource management?



Appendix 8: Evolution of the WAP process in North East CMA — An example of adaptive management

Introduction

Waterway management has always been important in NE Victoria and the predecessors of the CMA were established solely for that purpose. Initially river trusts or river improvement trusts were established to look after the rivers and streams in the region. In 1993 the Upper North East River Management Authority (UNERMA) was formed by amalgamating the river improvement trusts for the Kiewa, Mitta Mitta and the Shire of Upper Murray to manage the all the waterways in that part of NE Victoria. Another agency, North East Waterways became responsible for the management of waterways in the Ovens River Basin.

When the North East CMA was created in 1997, waterway management became one of its responsibilities.

This appendix briefly traces the evolution of waterway management in the NE region.

River Improvement Trusts

These trusts operated for all the significant rivers and streams in the region and focussed mainly on: streambed stabilisation to protect roadworks and other infrastructure such as bridges and private land; reducing risks of the streams altering their courses through avulsion (breakout); and on reducing bank erosion. The works were generally requested by shires, road authorities and landholders whose land was directly impacted. The major activities of the trusts involved rock beaching and other in-stream works to achieve streambed stability. The trusts encouraged and assisted riparian landholders to plant willows initially and later exotic trees such as hybrid poplars as a means of bank stabilisation. Many of these trees subsequently became major causes of deteriorating stream conditions by blocking watercourses and causing erosion.

The major focus of the trusts was on works in-stream and they mainly were in response to requests from authorities and landholders.

Upper North East River Management Authority (UNERMA) and North East Waterways

These agencies began to take a new role by looking at water management on a larger scale and considering more of the off-stream influences in addition to isolated stream management problems. They also took responsibility for commenting on subdivision and other planning issues and sand and gravel extraction. Part of the costs of operating these agencies was met through a waterways tariff that was collected by local government on behalf of these agencies.

By the 1990s, nearly all the major watercourses in the North East were being managed with the ultimate aim of reducing loss of instream and riparian habitat and erosion of banks and beds. The major means of achieving this was through erosion and sediment control.

A related responsibility of these agencies was floodplain management and flood mitigation.

These agencies co-existed with the North East Catchment and Land Protection Board which was one of 10 such regional boards established as a result of the Catchment and



Land Protection Act of 1994. The intention in creating the CALP boards was to achieve better integration of catchment management by developing a single regional catchment strategy to coordinate the efforts of waterway management authorities, Salinity Plan implementation groups, Sustainable Regional Development Committees and to build on the community involvement in those initiatives.

Local government

Local government has historically influenced waterway management through its planning schemes and controls over land use and development. In 1994 the State government reviewed and re-allocated shire boundaries with the result that the 22 local government areas were combined to create the six local government areas that now comprise the NE Region. This amalgamation has simplified the task of achieving a consistent and integrated approach to NRM across the region.

North East Catchment Management Authority

With the creation of the CMAs in 1997, responsibility for all regional natural resource management planning was under one roof. The CMA established three implementation committees covering three sub-regions of the NE and used these committees to provide community input, help set priorities for waterway management projects and to oversee implementation programs. One of the early initiatives of the CMA and its implementation committees was to establish a protocol for the development of waterway programs which included full community consultation.

The waterway management plans that emerged from the new CMA and its IC's differed from earlier plans in several ways: they all responded to and reflected broader statewide and regional guidelines and priorities and hence were more consistent; they were preceded by assessments of river health (either locally or downstream); they tended to be proactive in seeking to achieve a certain outcome rather than reacting to a local problem; they incorporated more local knowledge as a result of community consultation; and they commonly included more off-stream activities (usually involving Landcare groups and often Land Protection Incentive Scheme [LPIS] funding) to complement the in-stream actions.³⁶

The North East CMA first introduced Waterway Action Plans (WAP) in 1999. The WAP were designed to facilitate major works by: (i) fostering community support; (ii) establishing a technical basis for determining works priorities; (iii) incorporating the objectives of other relevant regional strategies; (iv) devising partnership agreements whereby landholders undertook to meet certain obligations for complementary works such as fencing, re-vegetation and weed control; and (v) establishing a financial plan for the works. The Implementation Committees were instrumental in identifying the locations where WAPs were required.

³⁶ Examples of this more strategic approach include the following two CMA initiatives. The Mitta Mitta River Catchment Coordination Group (Landholders, CMA, River Murray Water, Goulburn Murray Water and Towong Shire) developed a waterway management strategy to assist the improvement of health of the Mitta Mitta river. The Upper North East and Ovens Basin Water Quality Strategies were finalised in 1998 and included: definition of best (agricultural land) management practices; gully stabilisation works; erosion remediation works, riparian land fencing, revegetation and stock restrictions.

In 1999 a new State government abolished the Waterway Management Tariff which had previously been levied on rateable properties within the Waterways Management Districts.³⁷ Replacement funding was provided by the government through the statewide River Health and Water Quality program. It is suggested by some observers that the abolition of this tariff reduced the sense of ownership that the community has had towards the waterway management plans.

In 2000, the WAPs were based on more extensive technical assessment of the catchment and a more strategic approach to ensure that the full range of objectives could be achieved efficiently. In 2001, the IC's formed a Waterway Portfolio Group to improve the formulation and implementation of WAPs. The priority setting process for developing WAPs also gave greater emphasis to maximising environmental outcomes. And the landholder partnership agreements were negotiated individually with each participant before any works were commenced. A landholder partnership program was initiated to allow landholders to request assistance from the CMA with the decision dependent on whether the works were in line with the CMA's priorities. In 2001, 30 such agreements were concluded for works including willow management, bank stabilisation, fencing and revegetation.

A review of the Indigo Creek WAP by the IC in 2002 found that the WAP process needed further improvements particularly in relation to: (i) better pre-planning and budgeting; (ii) obtaining greater input from a larger number of landholders; (iii) ensuring that landholders met their obligations for ongoing maintenance; and (iii) to strengthening efforts to ensure that landholders agreed with the objectives of the WAP.

In 2002 the North East CMA conducted a review of the 14 WAPs that it had carried out and used this process and its findings to develop a new formal policy for WAPs. The policy is summarised below.

The North East CMA Policy for Waterway Action Plans

The CMA has identified a set of principles to be followed when developing WAPs including:

- Ensure that the WAP takes into account other NRM initiatives planned or current including Landcare.
- Take a landscape or whole of catchment perspective
- Be clear about the objective and justification for activities
- Develop in partnership with community—not a CMA plan
- Establish and use a WAP Steering Committee to develop and oversee stakeholder engagement strategy and seek to engage all interested stakeholders
- Involve implementation committee members in all stages of the WAP—development, implementation and evaluation
- Develop the WAP ahead of implementation and complete within six months.

³⁷ In FY 1999 the tariff raised \$0.8 million equivalent to 15% of all revenues. This exceeded the contributions made by the Federal Government.



The principles to be followed when implementing the WAPs include:

- All implementation activities to be subject to a Landholder Partnership Agreement
- Landholders involved in works to be kept fully informed
- The Project Manager to be the contact point and to be responsible for overseeing implementation

The procedures that the North East CMA has specified for the development of a WAP are as follows.

1. The need for a Waterway Action Plan will be based on priorities in the Regional River Health Strategy. Implementation Committees will be responsible for determining the location of WAP's.
2. The following initial planning activities must take place before the community is engaged.
 - Compile relevant information on the area and determine any Landcare Local Area Plan activity in the selected area.
 - Identify other programs potentially available to be integrated into the WAP and seek their commitment to focus on the target area – signed off through the IC process.
 - Collectively with other identified programs, develop the aims of project
 - Identify Project Manager.
 - Convene a project area steering committee. The steering committee to consist of 2 to 3 landholders from the project area, the program managers involved, the designated project manager and at least one IC member. The steering committee is to be chaired by the Manager – Water Programs. The role of the steering committee is to;
 - Develop a community engagement strategy
 - Monitor consultation process
 - Assess whether the level of landholder commitment to the project is sufficient to continue.
 - Provide feedback to the local community during the development phase
3. Once planning has been completed, the community consultation phase can begin. Consultation is to be conducted in accordance with the Community Engagement Strategy developed by the steering committee. The minimum requirements for consultation activities are;
 - Present to the community a summary of objectives for the designated area that are based on objectives of the North East Regional Catchment Strategy and its underpinning strategies and action plans.
 - Invite input from the community on its expectations and "vision" for the designated area.
 - Revise objectives based on the community's input and present draft to community for comment.

- Present to the community issues and management actions that have been identified and how the plan is to be implemented.
 - Complete the “Plan” section of the WAP and invite comments from the community.
 - Present the “Plan” to the relevant IC for endorsement.
 - No funding commitments are to be given at this stage of the WAP development.
4. Upon endorsement of the Plan by the IC, implementation planning can commence. Implementation planning is to include;
- Site inspections with the landholders.
 - Development of an annual work plan.
 - Development and sign-off of Site plans by the landholders (including a risk assessment for the site and for the planned activities).
 - Signing of Landholder Partnership Agreements.
5. Implementation of works at agreed sites. The following key activities and principles will apply during implementation;
- Prepare a schedule of activity with indicative timelines as part of the Annual Work Plan.
 - No works to commence without a signed Landholder Partnership Agreement.
 - The landholder is to be kept informed throughout and offered the opportunity to provide feedback.
 - A Site Completion Report is to be prepared for each site within one month of completing works.
 - An Evaluation Report to be prepared on completion of each year’s Annual Works Plan.
 - Maintenance works to be carried out in accordance with Landholder Partnership Agreements and the CMA’s Maintenance program.
 - Celebrate plan implementation with the community. This should include site visits.
 - Undertake regular reporting on implementation and recommended changes to the plan for approval to the relevant Implementation Committee.
 - Initiate a survey of those involved in the project with the purpose of learning from the community and improving future project implementation.



Appendix 9: Strategic focussing of stakeholder analysis

Strategic Focussing of Stakeholder Analysis at the Project Level

The table below presents a series of prompts to help determine what (if any) further stakeholder analysis is needed to ensure that a project has the best possible prospects of achieving its objectives. If you can answer these questions for your project, please complete the second column by giving a brief response to the question. If you cannot answer the question, consider whether you need to do further stakeholder analysis along the lines of the actions suggested in column 3.

Table 1

Focus Questions	If Already Known (Describe)	If Don't Know (May need following actions)
What practice needs to change in the catchment to achieve your project's objectives?		Research into causes & effects Refinement of project logic
How will you know if these changes have taken place?		Re-development of logframe and/or M&E activities
Who (which stakeholders) need to make these changes?		Development of stakeholder map showing key stakeholders and their attitudes to the project
How confident are you that they will make these changes? (RISK) (You might also consider what do you need to do/deliver in the engagement process to be sure that the stakeholders can achieve the project's objectives?)		Re-examination of past experience with similar projects/stakeholders Discussions with peers
On what do you base your confidence? (EVIDENCE)		Documentation of past experience and assumptions
What would be the CONSEQUENCES of you not knowing / being wrong about how these stakeholders will behave?		Review of project logic and assumptions Specification of consequences Conduct of formal risk analysis



Given the RISKS & CONSEQUENCES is it worth investing more time in understanding the likely behaviour of one or more of the groups? If so, which groups do you need to understand better for this issue?

Develop some objective basis for deciding on acceptable levels of risk.



Table 2

Adaptive Management of Stakeholder Analysis in Projects

This table is a suggested process for streamlining and focussing the stakeholder analysis part of project design. It builds on the process outlined in Table 1.

Stage	Actions	Rationale for Actions
Preliminary Design	Use all available secondary data on stakeholders and carry out strategic focussing of analysis as in Table 1. Determine who are the critically important stakeholders whose participation is essential.	It may be that you already know enough about the stakeholders to develop the design without conducting new stakeholder mapping.
Detailed design	Develop project plan and logframe and specify the assumptions for each stage of the project logic. In preparing M&E measures of practice change, check to see whether you have adequate baseline information about practices of the critically important stakeholders	This is the normal project planning process but it includes the check that you have baseline data against which to measure practice change or the process of practice change
Initial implementation	Monitor the impacts that the project is having particularly on attitudes and practices and the level of participation of critical stakeholders.	After you have identified indicators of the process of practice change, this stage allows you to monitor whether or not you are on track to achieve those changes
Review and revise	Based on the results of the monitoring of participation and attitude/practice change in critical stakeholders, decide whether you need to modify the project design and/or study the critical stakeholder groups more comprehensively.	Following the adaptive management approach, this stage is when you review progress and decide whether a change in the project design is needed. If the project is falling short because stakeholders are not behaving the way you had assumed they would, this may indicate the need for further stakeholder analysis.



Appendix 10: Policy implications of the idealised straw man for effective practice change and community engagement

<i>Conditions needed</i>	<i>Policy implication for North East CMA</i>	<i>Policy implication for investors</i>
CMA is clear about the resource condition change that is been sought and the benefits that would be achieved (and by whom) if this change were achieved.	Statement needed in each project proposal. May need to find funds for benefit assessment.	
CMA is clear about the views of investors and partners about this resource condition change and their willingness to support action. This is reflected in the RCIP.	May need to seek views of investors	Need to respond to requests for clarification
Investors are providing support for a range of additional investment tools (eg NLP, Envirofund, commissioned studies) to complement the regional funding model.	CMA to advise community about alternative funding channels available and to use this opportunity to build bridges with community	Essential to maintain NLP, Envirofund etc Need to ensure adequate support provided in these forms
CMA has communicated this information/perspective widely across stakeholders	Needs to be part of the new Communications Strategy	Need to provide adequate support for communication at regional level
CMA (and its partners) understands the causes (social, institutional, economic and ecological or technical) for the current resource condition trend.	Implement the Community Engagement Policy Need to carry out (or access) strategically targeted social, economic and technical research Need to have adequate skills base in CMA	Need to fund sufficient stakeholder analysis and make it clear that this work is valued.
CMA (and its partners) have considered and are aware of a range of feasible/practical practice change options to address the causes.	Need to set aside time to do this and to have this as a specific output for the project design process	Need to make sure funds are available for this work Need to help CMAs share information so that they are not unnecessarily duplicating work of others
CMA (and its partners) have identified the stakeholders who could contribute most effectively to the change in resource condition (Key stakeholders)	As above plus on-going implementation of the CEP	As above



<i>Conditions needed</i>	<i>Policy implication for North East CMA</i>	<i>Policy implication for investors</i>
CMA (and its partners) understand the perspectives of the Key Stakeholders including both (i) to the resource condition, its trend, its causes, possible actions and their perceived barriers and (ii) to the other 'things they want to do or change in their operations'	As above	As above
CMA (and its partners) work with the Key Stakeholders to reach mutual agreement in broad terms on actions which they are prepared to take to contribute to resource condition change being sought. This negotiation would include estimates of costs and cost sharing as part of a hybrid incorporating both Duty of Care and 'beneficiary pays' approaches.	CMA need to ensure staff have necessary skills CMA needs to have promoted duty of care ethic to lay the groundwork Cost sharing process should be mainstreamed into all activities	Need to ensure CMAs have resources for staff training and development Need to support the regional efforts towards creating a duty of care ethic
CMA works with Key Stakeholders and Key Partner(s) to formulate detailed program/project and action plans to achieve the desired result. This may involve preparation of a Logframe or a range of other project design and monitoring tools. (Note: not all potential participants need be involved but the program/project should provide a vehicle that could be used by any participant meeting certain objective criteria such as location, land use etc)	CMA staff need to have appropriate project design tools and process and be trained in their use	Need to ensure CMAs have resources for staff training and development
CMA along with Key Stakeholders and Key Partners monitor the implementation of the program/project and action plans, reflect on results and adapt the program/project and action plans as agreed to be appropriate.	MERI framework needs to be implemented	Investors should move focus of reporting to higher level outcomes rather than project level outputs
On completion (and/or progressively through the life of the program/project) the CMA along with Key Stakeholder and Key Partners should arrange for appropriate levels of evaluation of the process.	As above CMA should keep investors informed of outcomes of evaluations	Need to ensure that CMA have adequate funds for M&E especially the cross-cutting evaluation of themes that are not generally covered by project or program evaluations.



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