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Audit Report
Southern Rivers
Catchment Management Authority

November 2009

Commissioned by the
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List of Acronyms

CAP	Catchment Action Plan
CMA	Catchment Management Authority
CSO	Community Support Officer
DPP	Detailed Development Plan
GIS	Geographic Information System
LMD	Land Management Database
LMT	Local Management Team
MER	Monitoring, Evaluation and Reporting
MERI Plan	Monitoring Evaluation and Reporting Plan
NRC	Natural Resources Commission
NRM	Natural Resource Management
NSW	New South Wales
NSF	Natural Sequence Farming
PVP	Property Vegetation Plan
SEL	South East Landcare
SR	Southern Rivers
SRBI	Southern Rivers Bush Incentives Program



1. Introduction

The Natural Resources Commission (NRC) has a statutory role to audit whether the state's 13 Catchment Action Plans (CAPs) are being implemented effectively – that is, in a way that complies with the *Standard for Quality Natural Resource Management* (the Standard) and will help achieve the state-wide targets.

In 2008 the NRC undertook seven of the thirteen audits. In 2009 the NRC contracted external consultants to complete the remaining six audits. The NRC contracted GHD to undertake the audit of the implementation of the CAP prepared by the Southern Rivers Catchment Management Authority (CMA).

This Audit Report to the NRC contains the conclusions of the audit of the implementation of the Southern Rivers CAP and the actions the GHD audit team suggest Southern Rivers CMA Board take to improve CAP implementation. The full audit conclusions and suggested actions, and a summary of the CMA's response to the suggested actions, are included in Attachment 1 of the report.

The purpose of this report is to promote greater understanding of Southern Rivers CMA performance, and to guide the CMA Board in continued improvement. The report explains:

- ▶ The audit conclusions and their significance;
- ▶ How GHD used the Standard in reaching the conclusions.

The NRC will use the conclusions, along with those of other audits and additional information, to inform a consolidated report to the NSW Government on progress in implementing CAPs and performance of the regional model.

1.1 Focus of the Audit

Although a range of government agencies have a role in implementing CAPs, the NRC focused its first audits on the actions of the CMAs. This is because CMAs are the lead agencies responsible for implementing CAPs.

In addition, while state-wide and CMA-level monitoring and evaluation programs are being implemented, sufficient and consistent data from these programs were not available at the commencement of these audits. As a result, the NRC's initial audits were not able to test the contribution of CMA actions against accurate measurements of landscape-scale changes in natural resource condition that help achieve the state-wide targets. Instead, the audits focused on whether CMA's planning, project implementation and other CAP-related activities, and the business systems that guide and support these activities, are reaching the quality benchmarks set by the Standard.

To do this, the analysis of the audit results focused on four lines of inquiry:

1. Is the CMA effectively prioritising its investments to promote resilient landscapes that support the values of its communities?
2. Are the CMA's vegetation projects contributing to improved landscape function?
3. Is the CMA actively engaging its communities?
4. Is the CMA effectively using adaptive management?



For each line of inquiry, the GHD audit team assessed not only whether the CMA is doing the activity, but whether it is doing it effectively – that is, by applying the most relevant elements of the Standard and achieving the required outcomes of the Standard. The NRC believes a CMA that is doing each of these four activities in a way that reaches the quality benchmarks set by the Standard has the greatest chance of achieving multiple NRM outcomes and making the highest possible contribution towards the state-wide targets.

Finally, in considering each of the four lines of inquiry, the audit team was required to focus on CMA projects that use vegetation to improve landscape function. It was not practical to look at all CMA programs and projects, given the timeframe for the audits. The NRC considers that focusing on vegetation-related projects was the best option, as in general these have most potential to contribute to multiple NRM targets across more than one biophysical theme (for example, improvements in river health, soil function and native species habitat).

1.2 Summary of audit findings

To conduct the audit, the NRC identified what it would expect to find if the CMA was doing each of the four activities listed above effectively. For each line of inquiry, the NRC identified three or four criteria it would expect the CMA to be meeting. The NRC also identified the elements of the Standard that are most relevant and important to that line of inquiry, and the CMA behaviours and other outcomes it would expect to find if the CMA is properly applying those elements of the Standard.

GHD then assessed the CMA's performance against these expectations using information gained by interviewing a sample of CMA Board and staff members, landholders and other stakeholders; reviewing a range of CMA and public documents; and visiting projects.

Finally, GHD identified the actions the CMA should take to improve its performance in implementing the CAP in compliance with the Standard.

The sections below summarise the audit findings for the Southern Rivers CAP, including the NRC's expectations, the auditor's assessment of the Southern Rivers CMA's performance against these expectations, and the actions the auditor suggest the CMA take to improve its performance. As noted above, the full audit conclusions and suggested actions for Southern Rivers CMA are provided in Attachment 1.

1.2.1 Prioritising investments to promote resilient landscapes

If a CMA is effectively prioritising its investments to promote resilient landscapes that support the values of its communities, the NRC would expect to find that it has a commonly understood definition of what constitutes resilient landscapes in its catchment. For example, its Board members and staff would be able to consistently explain the main natural resource assets in the catchment, and the interactions that characterise healthy landscape function. They would know the main threats to the assets and landscape function, and the environmental, economic, social and cultural value the community places on the assets. And they would agree on the options for action and how they promote resilient landscapes.

The NRC would also expect to find that the CMA has a system for ranking investment options that uses a wide range of information about the assets and threats, and can identify the projects that will contribute to multiple NRM targets across more than one biophysical theme. This system would be



transparent, consistent and repeatable. In addition, the NRC would expect to find that the CMA has a system to ensure its short- and long-term investments are consistent with each other and with the catchment-level targets in the CAP.

The audit of Southern Rivers CMA's implementation of the CAP found that:

- ▶ The CMA had a common understanding of resilience from a biophysical, social and economic perspective. The CMA and stakeholders had engaged in a sub-regional planning process through which key assets and threats were identified at a variety of scales. The plans, although incomplete, provided the basis of NRM delivery and stakeholder engagement at the landscape scale.
- ▶ The CMA had a documented a system of prioritisation matrices across themes for delivery of investment in the Southern Rivers region that incorporated best available knowledge and was transparent and repeatable. The prioritisation matrices provided a basis for the development of actions in the six draft sub-regional plans, which prioritised CAP management targets. The CMA acknowledged that it had not yet implemented the priority setting process as an integrated assessment across themes that could support delivery of multiple outcomes.
- ▶ The CMA had systems to manage the consistent and integrated implementation of long and short-term priorities in its region, guided principally through its sub-regional plans. The sub-regional planning process through local reference groups provided a forum for the development and implementation of local priorities that aligned with CAP targets.
- ▶ The CMA Board and Executive Management Team had active involvement in review of the prioritisation process for investment across the region, and had developed guiding principles for staff and stakeholders to support the development of investment applications across the region.

The auditor suggests the Southern Rivers CMA Board take a range of actions to address the issues identified by the audit and so improve the extent to which its implementation of the CAP complies with the Standard. These actions include:

- ▶ Use the CAP review process to update the CAP with new knowledge from the sub-regional planning process.
- ▶ Develop a process within the prioritisation system that allows integrated assessment across themes and supports delivery of multiple outcomes.

1.2.2 Delivering projects that contributed to improved landscape function

If a CMA is effectively delivering native vegetation projects that contribute to improved landscape function, the NRC would expect its Board and staff to have a common understanding of how the short-term outcomes of its projects are expected to lead to long-term improvements in natural resource condition, and that the expected long-term outcomes are documented. The NRC would also expect to find that its projects are achieving the expected short-term outcomes, and that the CMA has a system for identifying opportunities to further leverage the experience of its project partners to add value to the initial projects.

In addition, the NRC would expect to find that the CMA is attracting additional funding and in-kind contributions to match government investments in projects. And that it has systems in place to monitor and evaluate project outcomes over time.



The audit found that:

- ▶ The CMA had established systems to document its projects' expected long-term outcomes within its project documentation templates, and CMA staff demonstrated sound logic linking project outputs and long-term outcomes. However, the projects' expected long-term outcomes had not been clearly and consistently documented in the project documentation templates for all the projects visited.
- ▶ The CMA had applied risk management for the projects inspected and some of the projects inspected had conducted a more detailed risk assessment. However, there was insufficient evidence that the risk mitigation measures were monitored and risk profile reviewed.
- ▶ For the projects inspected, project outcomes had been achieved on the ground and the CMA had sought to and been successful in adding greater value to projects.
- ▶ All projects inspected demonstrated an element of in-kind and monetary contributions that averaged approximately 50% of total project cost, which is consistent with the CMA's policy that all projects have 1:1 matching funds. The CMA has been successful in encouraging private landholders to make ongoing in-kind contributions and long-term commitments and documented cost sharing arrangements in Management Agreements with participating landholders.
- ▶ The CMA was not capturing all linkages to activities associated with its projects within the project documentation, but had sought to capture this information through other mechanisms such as the CMA's community engagement reports and the Southern Rivers Place Stories.
- ▶ The CMA has a good system to manage project information and monitor and evaluate progress towards project objectives and CAP targets. However, the CMA could not demonstrate that it had consistently applied its monitoring and evaluation and information management systems at a project scale.

The auditor suggests the CMA take a range of actions to address these issues including:

- ▶ Implement a review process to ensure the system for documenting for long-term project outcomes in internal documents is consistently applied.
- ▶ Ensure the risk mitigation measures are monitored throughout projects and the risk profile reviewed and updated as necessary.
- ▶ Where relevant, seek to document all project benefits to better demonstrate the leverage that some of the projects are providing.
- ▶ As part of regular review of implementation of the MERI Plan ensure the system to collect and record project and program data is applied consistently.

1.2.3 Effectively engaging its communities

If a CMA is effectively engaging its communities, the NRC would expect it to have identified the key community groups and stakeholders it should consider in planning and undertaking its work. The NRC would expect its Board and staff to have a shared understanding of these groups, including their knowledge, capacity and values, and the socio-economic and cultural opportunities and threats they pose to the successful implementation of the CAP.

In addition, the NRC would expect the CMA to be implementing an appropriate engagement strategy for each key group in its community, which is designed to build trust in the CMA, promote two-way knowledge sharing, and ultimately achieve outcomes. The CMA would also be implementing a



communication strategy that promotes collaboration, sustainable behavioural change and feedback. These strategies would be based on its knowledge of the interests, capacities and values of each group, and their communication preferences.

The audit found that:

- ▶ The CMA had taken a systematic approach to identify, document and understand the key community groups and stakeholders it must consider in planning and undertaking its work through its stakeholder matrix and Stakeholder Benchmarking Survey.
- ▶ The CMA had been proactive in developing an understanding of community capacity and their values as demonstrated through the completion of a Social Benchmarking Survey. The CMA indicated that it planned to regularly repeat the survey to monitor changes in community values and capacity.
- ▶ The CMA had developed and maintained strong community engagement networks, and was managing on-going engagement through its *Engagement and Partnership Strategy 2008-2011*. The approach included 'place-based' engagement and established six sub-regional local management teams and reference groups made up of government and community representatives.
- ▶ The CMA was fostering consultation and partnership arrangements with State government agencies, local government, District and Regional Landcare Associations, Local Aboriginal Land Councils, Industry Groups and communities.
- ▶ The CMA had developed a *2008 – 2009 Communications Strategy*, which clearly documented marketing and communication objectives and approaches, target audiences, communication mediums and methods and an action plan.
- ▶ A range of communication networks and tools was being used with community groups to increase both individual and organisational understanding and capacity, and increase communities' willingness to participate in achieving NRM long-term outcomes.

There are no suggested actions for how the CMA effectively engages with its communities.

1.2.4 Effectively using adaptive management

If a CMA is effectively using adaptive management, the NRC would expect it to have documented how it will apply the principles of adaptive management in its planning and business systems. The NRC would expect its Board and staff to be able to explain how the CMA uses adaptive management to promote continuous learning at both an individual and institutional level. They would also be able to explain the key knowledge gaps and uncertainties related to the assets and threats in the catchment, and how the CMA manages these.

In addition, the NRC would expect the CMA to use monitoring and evaluation systems that test the assumptions underlying its investments in improving landscape function and resilience, and use appropriate experts to assess the planned and actual outcomes of these investments. And there would be an organisational focus on applying new knowledge (gained from monitoring and evaluation or other sources) to increase the effectiveness of investments. Finally, the NRC would expect the CMA to have and maintain an information management system that supports its adaptive management processes.



The audit found that:

- ▶ The CMA had a comprehensive understanding of adaptive management principles, which it had documented in its Monitoring, Evaluation and Reporting (MERI) Plan. The CMA Board had actively implemented adaptive management as part of the governance of the organisation, implementation of its investment programs, sub-regional planning processes and internal audits.
- ▶ The CMA had implemented monitoring and evaluation processes principally through its MERI Plan, however the CMA had not yet developed detailed supporting documentation to assist project and regional level implementation of the MERI Plan.
- ▶ Prior to the development of the MERI Plan, the CMA had well-developed evaluation processes, research and development components and adequate monitoring of targets on a number of significant flagship programs. However the CMA had not adopted these processes rigorously for all projects and programs and data collection at the project level was not consistent.
- ▶ A number of information management systems were being used to support the monitoring of project outcomes, including the Southern River Project Database, Land Management Database (LMD) and the CMA's financial management system. However these systems were still under development and had not been consistently used to track and report on progress towards implementation of targets.

The auditor suggests the CMA take a range of actions to address these issues including:

- ▶ Develop detailed supporting documentation as part of the implementation of the MERI Plan.
- ▶ Implement the MERI Plan including a system of regular review to ensure consistent application and to identify opportunities for continual improvement.
- ▶ Review and determine priorities for development of the information system including integrating MERI Plan requirements.
- ▶ Develop a data quality management plan to support the consistency of data collection and reporting within the information management system.

1.3 Structure of the report

The rest of this report explains the audit conclusions and how the auditor used the Standard in reaching those conclusions in more detail. It is structured around each of the four lines of inquiry as follows:

- ▶ Chapter 2 describes the auditor's assessment of whether the CMA is effectively prioritising its investments to promote resilient landscapes that support the values of its communities.
- ▶ Chapter 3 focuses on whether the CMA's vegetation projects are contributing to improved landscape function.
- ▶ Chapter 4 discusses the auditor's assessment of whether the CMA is effectively engaging its communities.
- ▶ Chapter 5 looks at whether the CMA is effectively using adaptive management.

The attachments provide the full audit conclusions, suggested actions, the CMA's response, more detailed information about the audit, and an overview of the context for the audit conclusions including a summary of the key features of the Southern Rivers region and CMA.



2. Prioritising Investments to Promote Resilient Landscapes

The audit's first line of inquiry was to assess whether the CMA is effectively prioritising its investments to promote resilient landscapes that support the values of its communities. This line of inquiry focused on planning – the first step in the adaptive management cycle. Its aim was to assess whether the CMA had established the knowledge, understanding, systems and procedures required to undertake this step effectively, in line with the Standard.

Although the CAP itself documents the priorities in the region, the NRC recommended approval of each CAP on the basis that the CMA would continue to improve the plan's quality and potential to contribute to the state-wide targets. Therefore, the CMA cannot simply spend its funds in line with the CAP. Rather, it needs to continue to apply the Standard in implementing the CAP. This will enable it to continually refine its investment priorities as its knowledge of the landscapes and communities in its region improves, and its understanding of best-practice NRM evolves.

The NRC identified three criteria that it would expect a CMA to meet in order to effectively prioritise its investments in compliance with the Standard. These criteria include that the CMA had:

- ▶ A commonly understood definition of what constituted resilient landscapes in its region.
- ▶ A system for ranking investment options that took account of factors such as scientific and local knowledge; socio-economic information; community and investor preferences; potential for partners to contribute matching funds or in-kind support, and potential to achieve maximum outcomes, for example, by contributing to multiple NRM targets across more than one biophysical theme.
- ▶ A system that ensured that its short- and long-term investment priorities were consistent with each other, and with the catchment-level targets in the CAP.

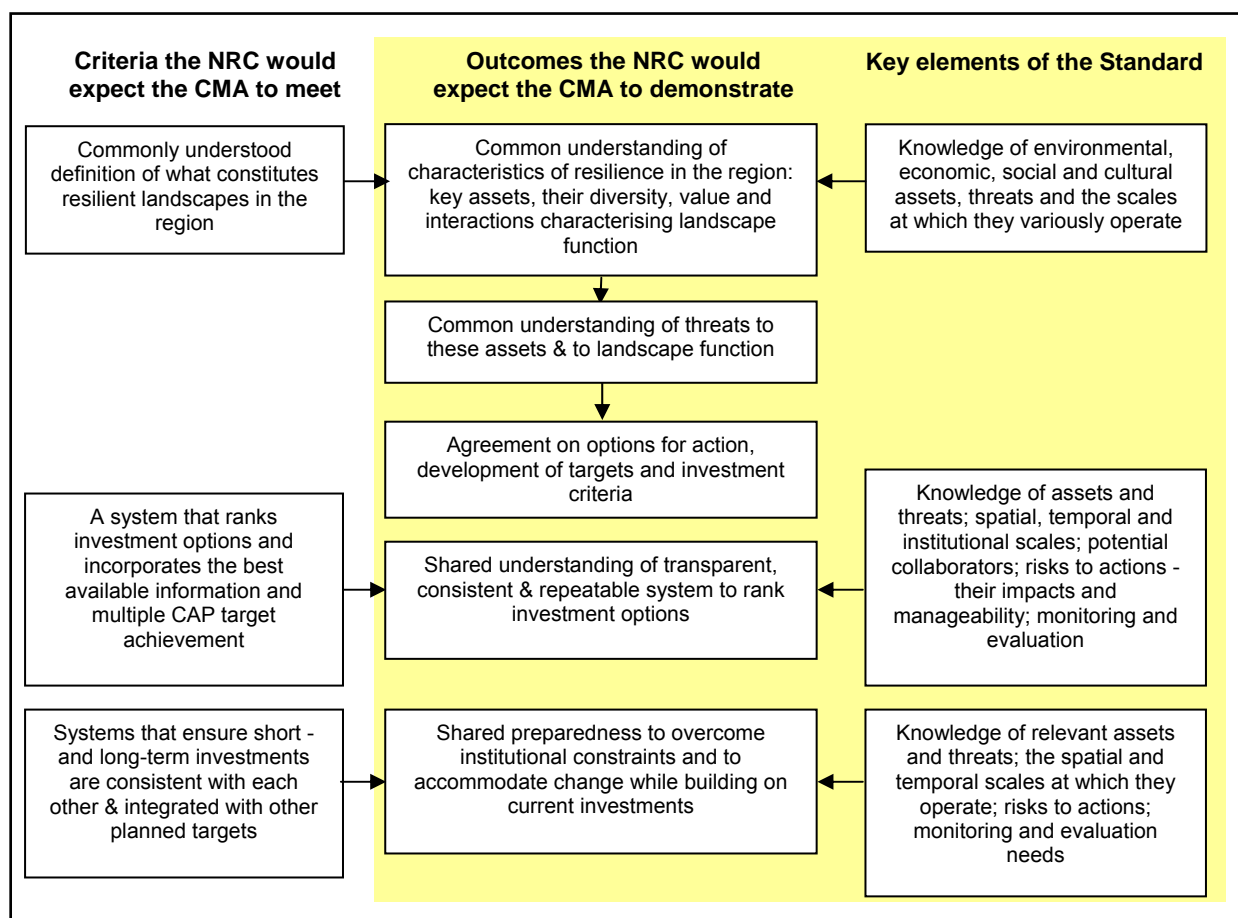
The NRC identified the elements of the Standard that are most relevant and important for meeting these criteria. The NRC also identified the behaviours and other outcomes it would expect the CMA to demonstrate if it is properly using these elements of the Standard, and thus meeting the criteria to a level of quality consistent with the Standard.

For example, if the CMA is meeting the first criterion (having a commonly understood definition of what constitutes resilient landscapes in its region) in a way that complies with the Standard the NRC would expect it to be collecting and using the best available knowledge on the natural resource assets and threats in its region, and on the economic, social and cultural values its community places on those assets. The NRC would also expect it to be considering the scales at which the assets and threats operate, and determining the optimal scale at which to manage them to achieve multiple NRM benefits and integrated outcomes.

As a result, the NRC would expect to find that its Board members and staff can consistently explain the main natural resource assets in the region, and the interactions that characterise healthy landscape function. The NRC would also expect them to understand the main threats to the assets and landscape function, and the environmental, economic, social and cultural value the community places on the assets. In addition, they would agree on the options for action to address the threats and maintain or improve the quality of the assets, and the criteria for deciding the actions in which the CMA should invest.

Figure 2.1 provides an overview of this assessment framework. The criteria the NRC would expect the CMA to meet are shown in the left hand column, the most relevant and important elements of the Standard for meeting these criteria are in the right hand column, and the behaviours and other outcomes the NRC would expect the CMA to demonstrate if it is using these elements of the Standard are shown in the centre column.

Figure 2-1. The framework the auditor used to assess whether the CMA was effectively prioritising investments to promote resilient landscapes



The sections below discuss each criterion, including why it is important and what the audit of the implementation of the Southern Rivers CAP found in relation to it.

2.1 Commonly understood definition of resilient landscapes

NSW's aspirational goal for natural resource management is resilient landscapes – that is, “landscapes that are ecologically sustainable, function effectively and support the environmental, economic, social and cultural values of our communities”.¹ At its simplest, a CMA's role is to coordinate investment to

¹ NRC (2008) *Healthy landscapes and communities*. NRC, Sydney. Available at www.nrc.nsw.gov.au.



improve NRM across its region and deliver outcomes that make the greatest possible contribution to the achievement of this goal. To do this, the CMA must have a commonly understood definition of what constitutes resilient landscapes in its region – its Board and staff members need a consistent understanding of what the goal means for the particular landscapes and communities in its region.

The audit found the CMA had a common understanding of resilience from a biophysical, social and economic perspective. The CMA and stakeholders had engaged in a sub-regional planning process through which key assets and threats were identified at a variety of scales. The plans, although incomplete, provided the basis of NRM delivery and stakeholder engagement at the landscape scale.

The Board and Executive were able to explain how the CMA had considered resilience across its sub-regions and the challenges it faced in trying to measure and monitor the change in asset condition. For example discussions identified actions the CMA was conducting to improve resilience across its sub-regions such as improved ground cover in the Monaro tablelands and reduced soil acidification in the dairying areas. These discussions also identified the difficulty in managing natural assets to improve resilience, for instance in coastal areas due to the threat of sea level rise and continued pressure from development. Project staff was able to discuss resilience and identify the relationships between the management activities they were delivering or facilitating to improve landscape condition and resilience.

In respect to the Standard, the CMA

- ▶ Demonstrated a common understanding of the biophysical and social assets and threats across its region and how to manage these at a landscape scale (*Collection and use of knowledge and determination of scale*).

2.2 A system for ranking investment options

Our knowledge of biophysical and natural systems is incomplete and evolving. People's interactions with natural systems are also dynamic, and community values evolve over time. Because of this, CMAs need to continually seek out improvements in knowledge and adjust their focus accordingly. Their systems for ranking their investment options need to use a wide range of information – such as scientific and local information on the assets and threats in the region, as well as information on the values the community places on the assets, and on potential collaborators and their capacity.

In addition, CMAs have received limited government investment and have an enormous amount to achieve if we are to realise the goal of resilient landscapes. This means they need to invest these funds in ways that will make the greatest possible contribution towards as many catchment-level and state-wide targets as possible. To do this, they need a system for ranking investment options that takes account of the options' potential to contribute to multiple targets.

The audit found the CMA had a documented prioritisation system for ranking options and delivering investment in the Southern Rivers region that incorporated best available knowledge and was transparent and repeatable. The basis of the system was the development of prioritisation matrices across the key themes of vegetation, river health, estuaries, threatened species and noxious weeds. The matrices had been developed incorporating best available scientific information and the use of expert theme teams consisting of university, agency and community stakeholders.

For example, the rivers priority matrices incorporated data on river condition, recovery potential of reaches, an assessment of downstream impacts to assets, trajectory of condition, practicality and



community desirability. This approach ensured the investment options incorporated the scientific aspects of priorities with community elements and the practicality for implementation.

The prioritisation matrices were used to prioritise CAP management targets and actions in the six draft sub-regional plans.

The audit found that the CMA had not yet implemented the priority setting process as an integrated assessment across themes, to support investment in the delivery of multiple outcomes. The CMA acknowledged it had not yet addressed this gap, as its focus had been to build the capacity and capability of stakeholders in the delivery of the sub-regional landscape model prior to developing this process further.

In respect to the Standard, the CMA:

- ▶ Demonstrated it had developed a structured, transparent and repeatable system that used best available information, and collaboration with experts and stakeholders, to rank investment options (*Collection and use of knowledge, Determination of scale and Opportunities for collaboration*).
- ▶ Could not demonstrate that it had undertaken an integrated assessment of priorities across the CAP themes to facilitate investment in multiple outcomes (*Collection and use of knowledge and Determination of scale*).

2.3 Consistent short-term and long-term priorities

The time lapse between changes to the management of natural resources and the improvement in the function of natural systems can be significant. In the interim, much can change and CMAs need to accommodate this change without losing focus on the long-term objectives of their region's CAP. To do this, CMAs need systems to help them adaptively manage towards long-term targets as they learn what works and what doesn't, and as the environmental, economic, social and cultural landscapes around them change.

The audit found the CMA had systems to manage the consistent and integrated implementation of long and short-term priorities in its region.

The CMA Board and Executive Management Team had active involvement in review of the prioritisation process for investment across the region. In response to recent NSW and Australian government investment priorities, the Board had developed guiding principles for staff and stakeholders to support the development of investment applications across the region. The Board identified funding of the community support positions was a key investment priority for all sub regions to ensure community capability and support to community stakeholders was maintained.

The CMA had implemented processes that adapted to changes in investor priorities and levels of funding in the region. The sub-regional planning processes provided a forum for stakeholder feedback and input to investment directions and management activities. During 2009-2010 investment planning the CMA identified that the investment available was unable to sustain all programs in the region. The Board made the decision to divert funding from a project that had the capacity to continue to deliver at a lower level of funding to an area that required maintenance of current investment to support the viability of the project and deliver long-term outcomes.

The CMA had been able to manage changes to funding and other externalities in part due to the development of the draft sub-regional plans and the delivery through local reference groups. This



approach enabled the CMA to develop strong partnerships across each region and was an effective method to identify research, plan and prioritise actions at a finer scale than the CAP to enable delivery by local stakeholders (see Box 2.1 for more information on sub-regional plans).

The CMA also had good systems in place to develop and maintain its understanding of community knowledge, capacity and values through regular community survey, as further discussed in Section 4. These systems had provided information to allow the CMA to make future comparisons and assessment of changes of knowledge, capacity and values over time, and adaptively manage the achievement of long-term targets.

In respect to the Standard, the CMA:

- ▶ Demonstrated it had processes to align short and long-term investment with the long-term goals of the CAP, guided principally through its draft sub-regional plans (*Collection and use of knowledge* and *Determination of scale*).

Box 2.1: Sub-regional Plans that support effective investment towards resilient landscapes

CMA's need a good understanding of values, threats and the scale they operate to effectively develop short and long-term goals and rank investment options to make the best possible contribution to resilient landscapes.

The Southern Rivers CMA applied a landscape model that integrates the CMA's operational activities from planning through to implementation and monitoring and evaluation at a sub-regional scale. A key component of this model is the establishment of sub-regional plans and local management teams across six sub-regions (Illawarra, Shoalhaven, Upper Shoalhaven, Eurobodalla, Snowy-Monaro, and Far South Coast). A key component of this model is local teams delivering integrated NRM projects in partnership with local stakeholders across the six sub-regions.

To support the delivery of its CAP the CMA has developed sub-regional plans to capture local targets that align with the CAP targets. While the CAP sets the higher order catchment and management targets to be implemented across the Southern Rivers region over the next 10 years, they are too broad to facilitate setting of priorities and ranking of projects at a local scale. The sub-regional plan allowed for the development of sub-regional scale targets, linked to the CAP targets. The boundaries of the sub-regional plans were also found to align with social networks and industries, and the diversity of biophysical assets of the region.



A local reference group was formed in each sub-region with a focal point for the group being the development, ownership, debate and review of the sub-regional plan. The aim of the group was to work collaboratively on the development of priorities and targets, capturing the priorities of local communities and partners. Representation on each group generally comprised members of community groups including Landcare and Aboriginal groups, state government natural resource agencies, local government and industry. A CMA Board Member chaired the group. This collaborative approach enabled the CMA to develop strong partnerships across each sub-region and was an effective method to identify, research, plan and prioritise actions at a finer scale than the CAP to enable delivery by local stakeholders. It increased formal collaboration between partners, provided ownership of outcomes, a forum for feedback to the CMA on local issues and increased the capacity of stakeholders to co-operatively deliver management activities that actively contribute to enhanced landscape resilience.



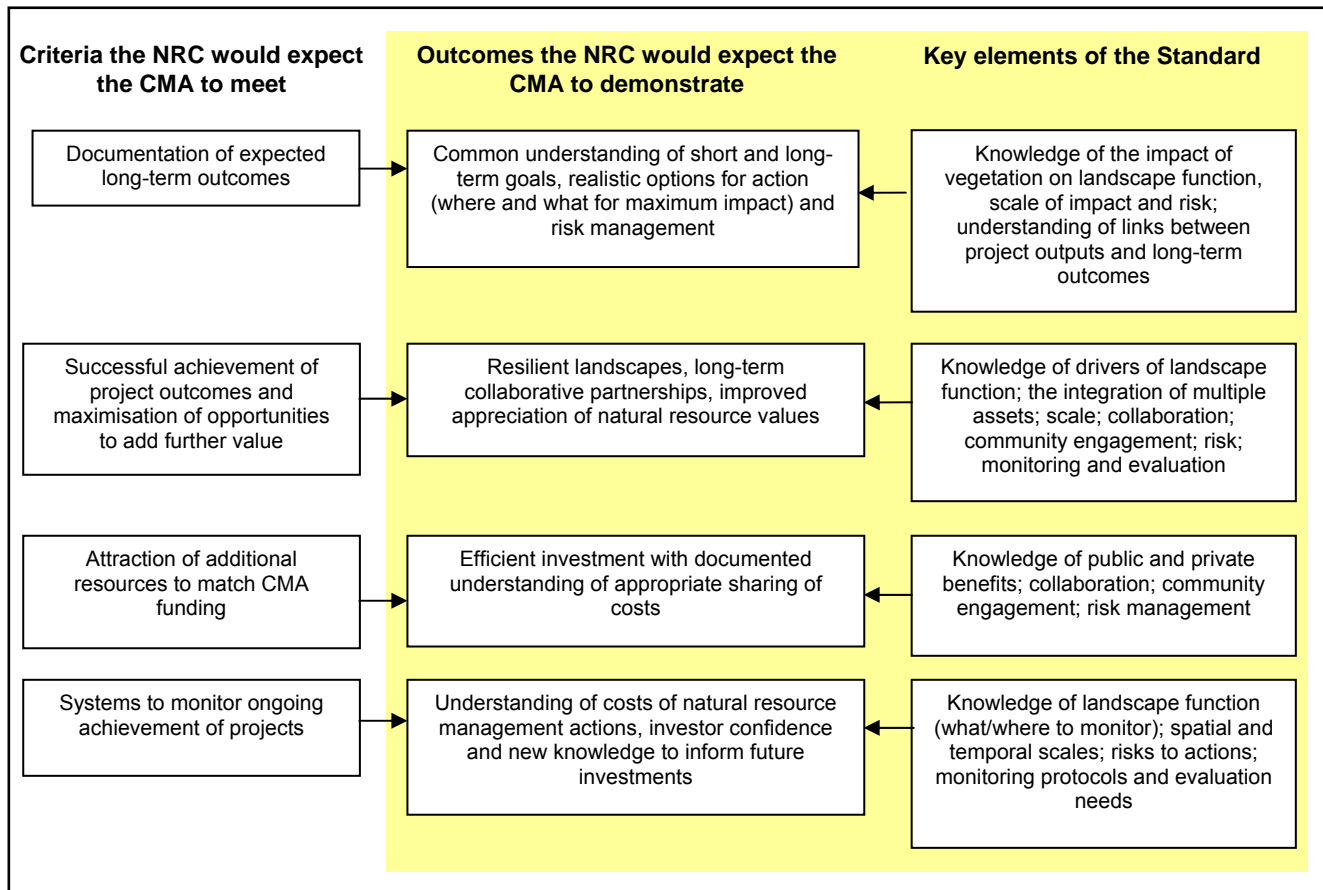
3. Delivering Projects that Contribute to Improved Landscape Function

The audit's second line of inquiry assessed whether the CMA's vegetation projects are contributing to improved landscape function. CMAs should promote short-term improvements in the management of natural resources in their regions that will contribute to long-term improvements in natural resource condition. To understand whether they are pursuing this aim in a way that meets the quality benchmarks set by the Standard, the audit team assessed whether they were meeting four criteria. These were that the CMA:

- ▶ Documented the expected long-term outcomes of the projects it invests in.
- ▶ Was successfully achieving short-term project outcomes, and maximising further opportunities to add value.
- ▶ Was attracting additional resources to match its funding in projects.
- ▶ Had a system to monitor achievement of ongoing project outcomes.

As for all lines of inquiry, the NRC also identified the elements of the Standard that are most relevant to meeting these criteria effectively, and the behaviours and other outcomes the NRC would expect to see if the CMA is using those elements of the Standard. These are shown in Figure 3.1.

Figure 3-1 The framework the auditor used to assess whether the CMA was effectively delivering projects that contribute to improved landscape function



The sections below discuss each criterion, including why it is important and what the audit of the implementation of the Southern Rivers CAP found in relation to it.

3.1 Documentation of expected long-term outcomes

Natural resource management is a long-term process, and it can take many years to achieve intended improvements in landscape function. In addition, our knowledge of natural systems and best practice in managing them continues to evolve, so natural resource managers need to continually adapt their actions to take account of new knowledge. The documentation of projects' expected long-term outcomes is important to help ensure projects stay on track over time. For example, it can help landholders and CMA field staff in continually managing towards those outcomes in the longer term as circumstances change.

The audit found the CMA had established a system to document project expected long-term outcomes. However, the system had not been consistently implemented for the projects visited.

The CMA's internal Detailed Project Plan (DPP) templates included sections for documenting long-term project outcomes within the project description, as well as sections which allow documentation of links to the CAP catchment and management targets, links to sub-regional plans and other strategic documents and project outputs and outcomes. The audit team found the long-term outcomes were



clearly documented within the DPP on two projects it inspected, but for the other three projects inspected information on long-term outcomes was brief.

Long-term project outcomes could be found in other documents, such as funding applications to the Australian Government's national NRM funding program. Long-term project objectives were also documented within management agreements with landholders provided, as well as in the Property Vegetation Plans with landholders, as relevant for the projects inspected. Interviews with landholders also demonstrated that landholders had an understanding of the contribution to improved landscape function at a local scale.

Despite the long-term project outcomes not always being clearly documented in internal planning documents, CMA landscape managers and project staff demonstrated a good understanding of the logic linking project outputs to long-term outcomes.

The CMA had used pilot projects to test management approaches, which demonstrated that the CMA was using adaptive management to inform realistic options for action. For example, this was demonstrated in the CMA's approach in the Monaro Grasslands Project (see Box 3.1) and the Southern Rivers Bush Incentive Program (see Box 5.1).

The CMA had applied risk management for the projects visited, which was documented in the DPPs. They included a *Risk Management Summary* section that assessed the top five risks associated with the project, the likelihood, impact and what actions are planned to mitigate those risks. However, there was insufficient evidence that the risk mitigation measures were monitored and risk profile reviewed. Some of the inspected projects had conducted a more detailed risk assessment (e.g. Mulloon Ck Natural Sequence Farming demonstration), and the CMA had developed an organisational level Risk Management Plan that included risks needing active and continuous review, including project level risks.

In respect to the Standard, the CMA:

- ▶ Demonstrated a good understanding of the logic relationships between the long-term expected outcomes and project outputs (*Determination of scale*).
- ▶ Could not demonstrate that it had documented project long-term goals for all projects inspected in CMA internal documents (*Risk management* and *Information management*).
- ▶ Demonstrated that it had considered project risks within project planning documentation; however risk mitigation measures were not being monitored and reviewed (*Risk management*).



3.2 Successful achievement of project outcomes

CMAs' projects need to successfully achieve short-term changes in the way natural resources are managed in their region to maintain credibility with their communities, and create confidence in their investors. However, as CMAs often engage with their communities on the community's terms (at least initially), they also need to seek opportunities to add greater value to the projects proposed by landholders or other stakeholders.

The audit found that for the projects inspected, project outputs had been achieved on the ground, that is, the works proposed had been completed successfully. Of the five projects inspected, three projects, were achieving or were likely to achieve short-term improvements in resource condition at multiple scales. It was not yet possible to determine if this is occurring for the remaining projects as one was an experimental trial testing a new management approach, whereas the other was in the early stages of implementation as part of a larger program.

For the inspected projects, the audit found that the CMA had sought to and been successful in adding greater value to projects. For example, on one project the CMA had developed and obtained agreement by the landholder to a Property Vegetation Plan (PVP) on title in perpetuity, which will enable long-term project outcomes to be secured. For the Monaro Grasslands Project, the CMA provided incentives designed to maintain the resilience of the native grasslands during the current drought by assisting landowners to destock pastures through the design and construction of stock containment areas.

The CMA had developed long-term collaborative project partnerships and improved appreciation of natural resource values in its region. The Monaro Grasslands project is one example of this at a project scale (see Box 3.1 for more information on the Monaro Grasslands project), whereas the CMA's strong relationships with district Landcare through its Community Support Officers (CSOs) demonstrated how this was occurring more broadly.

In respect to the Standard, the CMA:

- ▶ Demonstrated an understanding of the linkages between project-scale activities and resource condition change at the sub-catchment scale (*Determination of scale*).
- ▶ Demonstrated effective engagement with landholders and collaboration with partners to support successful project delivery and identify opportunities to add value (*Community engagement and Opportunities for collaboration*).

3.3 Attraction of additional resources

To make the most of the small amount of funding CMAs have to invest in their regions, they need to look for opportunities to attract matching funding. They also need to encourage private landholders to make ongoing in-kind contributions, as this promotes resource stewardship and can increase the likelihood of landholders remaining committed to the success of the project over time.

The audit found that all projects inspected demonstrated an element of in-kind and monetary contributions, as documented in the project final reports. Monetary and in-kind contributions averaged approximately 50% of total project costs, which is consistent with the CMA's policy that all projects have 1:1 matching funds. These cost sharing arrangements are documented in Management Agreements with participating landholders. The CMA had also successfully encouraged private landholders to make ongoing in-kind contributions and long-term commitments. For example, for the Monaro Grasslands



project, the CMA had signed a Management Agreement that secured a long-term commitment from landholders to manage and maintain the project area for 11 years, including meeting conservation objectives and weed management.

However, the CMA was not capturing all linkages to activities associated with its projects within the project documentation, but had sought to capture this information through other mechanisms. The CMA considered that it is not always possible to capture this information as some benefits are difficult to quantify, or were often identified at a later date. The CMA's community engagement reports and the Southern Rivers Place Stories were other mechanisms the CMA had been using to capture this information.

In respect to the Standard, the CMA:

- ▶ Demonstrated it had attracted additional resources to its investments, and recorded data on the additional resources it attracts in its information management systems (*Opportunities for collaboration, Information management and Monitoring and evaluation*).

3.4 A system to track ongoing achievement of projects

Long-term projects to encourage resource stewardship need monitoring – particularly given the significant time lapses between investments and resulting improvements in resource condition, the gaps in our understanding of how to manage dynamic natural systems, and the unavoidable flux in social, economic and climatic conditions. Investors require reliable information that short-term targets have been met, and progress towards longer-term objectives is being made.

The audit found that the CMA had developed a good system to monitor ongoing achievement of projects and had a good understanding of costs of natural resource management actions. However, the CMA was not consistently implementing the system.

At the project planning stage, the CMA used its Project Development Plans to identify project monitoring activities such as photo-point monitoring by landholders. In addition, three of the projects inspected had specific monitoring plans in place either at a project or program level.

The CMA's Land Management Database (LMD) and Southern Rivers Project Database were the key systems the CMA had used to manage project information. The CMA had used the LMD to map project outputs, and show how projects were spatially linked across the landscape and targeted priority areas. However, the CMA had not yet entered data and used this mapping approach for all projects and programs. The CMA had also used the Southern Rivers Project Database to manage project level information for reporting to investors and it was able to be used to tally up project outputs from across projects to measure progress towards CAP management targets. These information management systems are discussed in more detail under Line of Inquiry 4 in Section 5.

The audit found that the LMD and Southern Rivers Project Database could be used to generate reliable information that short-term targets had been met, and progress towards longer-term objectives was being achieved. However, from the review of the project reports, not all projects had clear reporting against project outputs, or details on how this information was to be used. Given this inconsistency, it is not clear if all project lessons are being captured and used to inform future investments, or that reports being generated accurately reflect all outputs achieved.



In respect to the Standard, the CMA:

- ▶ Demonstrated it had developed a good system to collect and manage project information and monitor and evaluate progress towards project objectives and CAP targets (*Monitoring and evaluation, Information management*).
- ▶ Could not demonstrate that it had consistently implemented its monitoring and evaluation and information management systems at a project scale (*Risk Management, Monitoring and evaluation, Information management*).

Box 3.1: Monaro Grassland Program - working with landholders to protect threatened vegetation communities while enhancing productivity

The Monaro Grasslands Pilot Area Project was the on-ground component of a broader program that aimed to trial and facilitate the successful implementation of management strategies to improve the profitability and sustainability of grazing systems, with an emphasis on native grasslands conservation values.

The Monaro is an extensive tableland plateau region located in the southeast of NSW to the east of the Snowy Mountains. The area has low rainfall, cold temperatures, dry summers, and a soil type that promoted the growth of temperate native grasslands rather than trees. The original extent of the grasslands was over 200,000 ha. Since European settlement the Monaro region has supported a significant grazing industry, initially relying on native grasses. However, since the 1930s the native grasses have been replaced with introduced species, and the use of fertilisers has brought about a significant change in the extent and integrity of native grasslands such that only 2-5% remain, mostly on private agricultural land, and is one of the most threatened ecosystems in NSW.

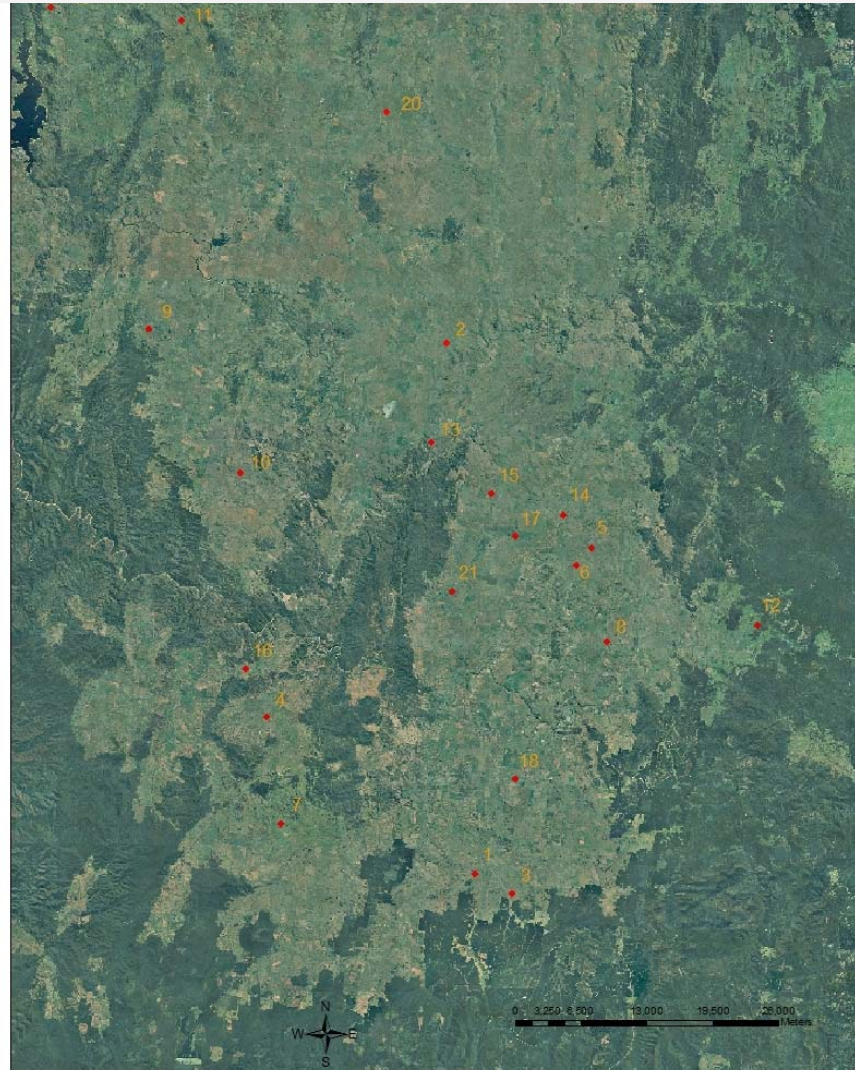
To protect and enhance the remnant grasslands of the Monaro region, the Southern Rivers CMA recognised the need to bridge the gaps between current land use activities and the need to ensure effective identification, conservation and sustainable use of the Monaro grasslands. To be successful, the CMA realised that biodiversity conservation can only be achieved on private land with the support of the community and equal consideration of agricultural productivity outcomes.

The successful implementation of the project included a number of key activities, including formation of a Local Management Team (LMT) chaired by a CMA Board member with representatives from the CMA, State government agencies, and local government; appointment of a project agronomist with a good knowledge of the region and a good relationship with local landholders; engaging with landholders using weed control incentives as an initial means of engagement, but ultimately focussing on improved grazing practices through education and training; and completion of landholder surveys.

The project used an adaptive management approach, by using a pilot project to develop a preferred model for engaging with landholders that could be extended to the rest of the Monaro region. Lessons learned from this project had informed the CMA of improvements for future program investments.

The project was also a good example of the CMA building trust and engaging with landholders who have traditionally distrusted government and not valued areas of high conservation grasslands. Landholders had been actively seeking out areas of high conservation value on their properties to obtain funding for paddock subdivision as a means of identifying and increasing productivity on other parts of their property. Landholders were now willing to sign a Management Agreement with the CMA to manage and maintain the project area for a period of 11 years.

Figure 3-2 Monaro Grasslands showing location of priority project sites





4. Community Engagement

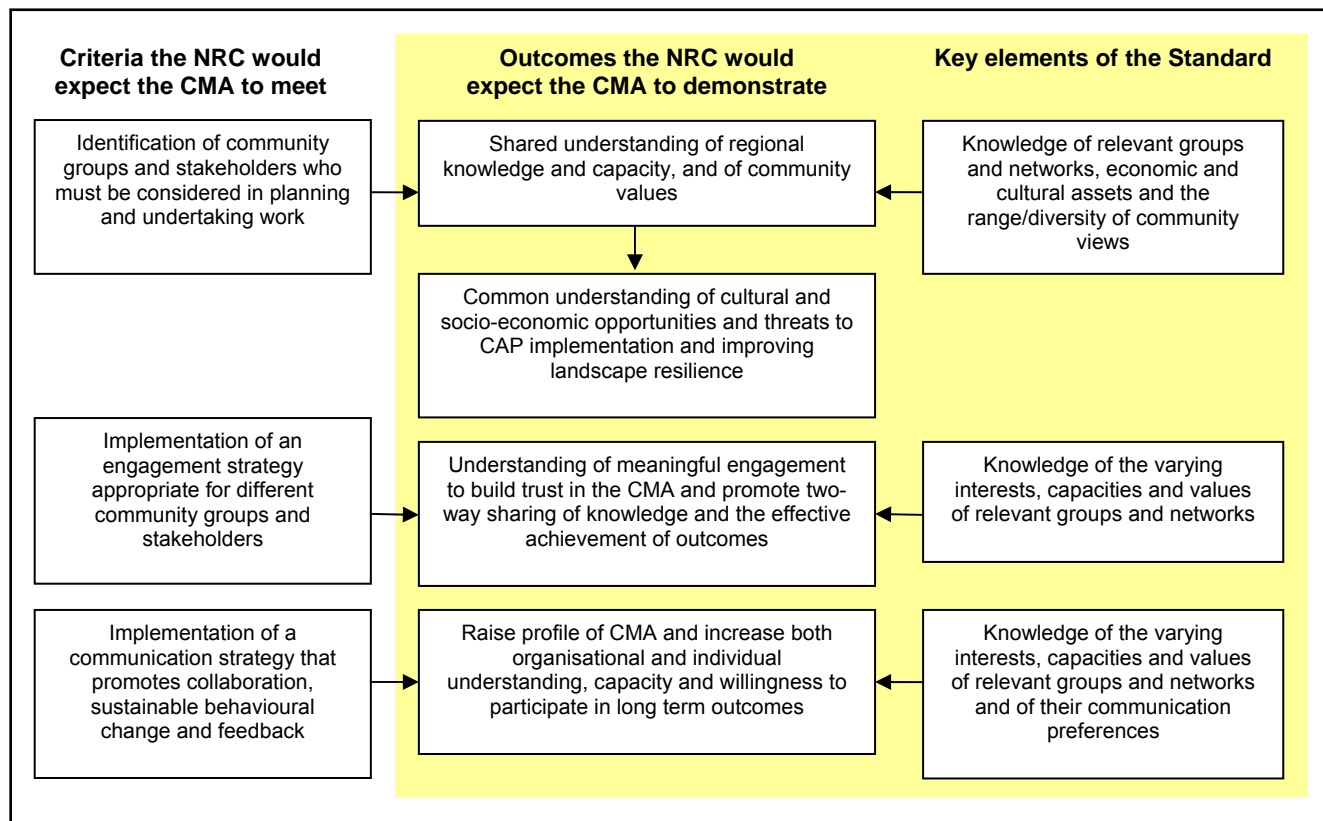
The NRC's third line of inquiry was whether the CMA is effectively engaging its communities. Given that 89 per cent of land in NSW is in private management, it is critical for CMAs to engage private landholders and other stakeholders who manage the natural resources on this land. This allows CMAs to access the local knowledge of their communities, and understand the values placed on the natural resource assets in their region. It also enables them to influence how natural resources on private land are managed, and to maximise the effectiveness of government investment in NRM by establishing collaborative partnerships with landholders and other stakeholders, and strengthening the capacity of their communities.

To assess this line of inquiry, the auditor looked for evidence that the CMA:

- ▶ Had identified the community groups and stakeholders it must consider in planning and undertaking its work.
- ▶ Was implementing engagement strategies appropriate for different community groups and stakeholders.
- ▶ Was implementing a communications strategy that promotes collaboration, sustainable behaviour change and feedback.

Each of these criteria is shown in Figure 4.1, along with the key elements of the Standard for meeting it effectively, and the CMA behaviour and other outcomes the NRC would expect to see if the CMA was using those elements of the Standard.

Figure 4-1 The framework the auditor used to assess whether the CMA was effectively engaging its communities



The sections below discuss each criterion in more detail, including why it is important and what our audit found in relation to it.

4.1 Identification and analysis of community groups and stakeholders

A CMA's logical first step in engaging the community is to identify the key community groups and other stakeholders it must consider in planning and undertaking its work. To be effective, it also needs to understand these groups – for example, what they know about the natural resource assets and threats in the region, what is important to them, and to what extent they have the capacity to participate in NRM designed to improve landscape function. In addition, it needs to understand how these groups might present opportunities or pose threats to its ability to effectively implement the CAP and meet the catchment-level targets in the CAP. Developing and maintaining this kind of understanding requires systematic research and analysis.

The audit found that the CMA had taken a systematic approach to identify, document and understand the key community groups and stakeholders it must consider in planning and undertaking its work. For example, when beginning to develop its CAP, it documented all stakeholders in the region, and prioritised these in a matrix against a range of criteria. More recently, the CMA had been proactive in further developing an understanding of community capacity and their values as demonstrated through the completion of a Stakeholder Benchmarking Survey in June 2008 (Box 4.1 provides more information on the CMA's Stakeholder Matrix and Benchmarking survey).



CMA Board and staff had a shared understanding of regional knowledge and capacity and community values. This understanding was facilitated by workshops held by the CMA to discuss the Stakeholder Benchmarking Survey findings with the Board, staff and stakeholders. The CMA had good systems in place to develop and maintain this understanding through regular community survey, to allow comparisons and assessment of change over time.

The CMA demonstrated that it is continually working to build community knowledge and capacity in NRM so that the community was able to respond to changing priorities, hence building resilience in its social networks. For example, the CMA had highlighted the importance of the Landcare partnership in delivering the CAP, and had put significant resources into supporting this partnership through regular contact, collaboration and capacity building. This included a CMA Board member having responsibility for the Landcare portfolio and the CMA Board and Executive's regular contact and meetings with District Landcare Associations, CMA funding of fulltime support positions for Landcare, and significant support to Landcare from CMA Project Officers. This support and its benefit to building social resilience in NRM were also strongly reflected in stakeholder interviews. Another example of the CMA's focus on community engagement and capacity building was the use of a sub-regional model for its operations, supported by Local Management Teams, which include community representation.

The CMA identified the importance of successful partnerships between the CMA, state government agencies and communities. To support this, the CMA had developed agreements and Memoranda of Understanding between the CMA and State Agencies, and was developing similar agreements with local government, District Landcare Associations and the Sydney Catchment Authority.

In respect to the Standard, the CMA:

- ▶ Demonstrated that it had taken a systematic approach to identify and gain an understanding of regional knowledge and community capacity and their values (*Collection and use of knowledge*).

4.2 Appropriate engagement for different community groups and stakeholders

Most regions of NSW include a variety of communities, community groups and other stakeholders which the CMA should consider in planning and undertaking its work. These groups have different knowledge and capacity for NRM, and value the region's natural resources in different ways. For example, they might include rural communities, farmers and graziers, urban communities, Landcare groups, mining companies, tourism operators, local councils, relevant government agencies and other government institutions.

To effectively engage these diverse groups, a CMA needs to use its understanding of each group to develop an appropriate strategy for productive engagement. This requires strategic thinking, risk management and processes to identify and fill knowledge gaps.

The audit found that the CMA was meaningfully engaging with its community and stakeholders through building trust and promoting the 'two-way' sharing of knowledge. The CMA's approach to engagement was guided by its *Engagement and Partnership Strategy 2008-2011* that set the CMA's overall engagement process and set strategic priorities for action. The CMA had also collected and analysed community benchmarking information, which it had used to inform its engagement approaches.

The CMA's engagement approach included 'place-based' engagement and established six sub-regional local management teams and reference groups across the region (Monaro, Bega, Eurobodalla, Shoalhaven, Upper Shoalhaven and Illawarra) made up of government and community representatives.



These groups had met quarterly to refine sub-regional NRM priorities, review program progress, and advise on the development of six sub-regional NRM plans. This, along with the Local Management Teams, provided a significant opportunity for community and stakeholder engagement at a local level. CMA staff and Board members interviewed during the audit had a good understanding of the CMA's *Engagement and Partnership Strategy 2008-2011*. The CMA had also run training for staff on community engagement provided by an external training provider.

The audit found that the CMA had also implemented a range of other strategies to engage different sectors of its community. The *Engagement and Partnership Strategy 2008-2011* described strategies to develop emerging and new partnerships with research institutions, arts and environment, youth engagement and coastal and marine stakeholders. Example of this occurring identified during the audits is the involvement of the Australian National University in the Mulloon Creek project to undertake ongoing monitoring, and the CMA's involvement in the Coastal Marine Working Group with coastal councils, rural landholders, and State government agency representatives. The CMA had also commenced fostering consultation and partnership arrangements with all Local Aboriginal Land Councils and was pursuing the funding of 'Aboriginal Works Crews'.

In respect to the Standard, the CMA:

- ▶ Demonstrated it had developed and maintained strong community engagement networks, and was managing on-going engagement through its *Engagement and Partnership Strategy 2008-2011* (*Collection and use of knowledge and Community engagement*).

4.3 Communication promoting collaboration, behavioural change and feedback

CMAs are also required to lead their diverse communities in understanding natural resource management. To do this, they need sophisticated approaches to communicating their messages, and for hearing and responding to the messages sent by communities. To capture the attention of diverse stakeholders such as Aboriginal communities, landholders, industry sectors, and urban and environmental organisations, their communication strategies need to reflect the varied values of their communities. This broad focus also helps to attract the widest possible funding and support across the region.

The audit found that the CMA has developed and had implemented sophisticated approaches to communicate its messages and for hearing and responding to messages sent by their communities.

At a strategic level, the CMA had developed a 2008 – 2009 Communications Strategy, which clearly documented marketing and communication objectives and approaches, listed groups across the region that are target audiences for the CMA, communication mediums and methods and includes a detailed action plan with responsibility, timelines and cost. The CMA had also developed specific communications strategies for key stakeholders. For example, the CMA was developing the draft *Southern Rivers Catchment Management Authority and South East Landcare Partnership Communications Strategy 2008 –09* to strengthen the partnerships and promote Landcare achievements across the region. The strategy set out three partnership objectives addressing internal (SRCMA / South East Landcare (SEL)) and external communication, and identified target audiences, media / actions, methods, messages / purposes and responsible persons under each of the three objectives.



The CMA had used a range of communication methods including the CMA website; newsletters; field days; engagement with industry networks, district Landcare associations, etc; media program; use of local reference groups; regionally based CSOs, Aboriginal CSOs, and conservation management networks. The CMA also provided support and funding to South East Landcare to organise and run the regional Landcare awards and various training workshops, and hosted the NRM Partnerships Conference in 2007.

The audit found the CMA had developed strong relationships with the catchment's stakeholders and the community. This supported the information presented by the CMA, that meaningful engagement was a key focus of the CMA. Interviews also identified that the CMA was playing an important role in sustainable behavioural change, recognising that under current funding arrangements this was challenging.

In respect to the Standard, the CMA:

- ▶ Demonstrated it had used a range of communication networks and tools with community groups to increase both individual and organisational understanding and capacity, and increase communities' willingness to participate in achieving NRM long-term outcomes (*Collection and use of knowledge and Community engagement*).

Box 4.1: Using a Benchmarking Survey and Stakeholder Matrix to understand regional stakeholders and their values, and access local knowledge

A key challenge for the Southern Rivers CMA is to identify, engage and support a variety of stakeholders throughout the region. Approximately 450,000 people live in the region including rural communities, farmers and graziers, urban communities, Landcare groups, mining companies, tourism operators, local councils, relevant government agencies and other government institutions. It is important for the CMA to gain knowledge of the relevant groups and networks, their capacity for NRM and the range/diversity of community views. This allows the CMA to access the local knowledge of their communities, and understand the values placed on the natural resource assets in their region. It also enables them to influence how natural resources on private land are managed, and to maximise the effectiveness of government investment in NRM by establishing collaborative partnerships with landholders and other stakeholders, and strengthening the capacity of the community.

The CMA has taken a systematic approach to understand and document the key stakeholders and community groups it must consider when planning and undertaking its work. The CMA had held an internal workshop to identify all stakeholders in the region and prepared a stakeholder matrix to document information such as the stakeholder group's area of operation, their 'burning issues', existing relationship with the CMA and barriers to engagement. Stakeholders were then prioritised using a range of criteria including the stakeholders capacity to make a difference and interest in NRM issues.

The CMA has been proactive in further developing its regional knowledge about the engagement and capacity of NRM stakeholders through the completion of a social benchmarking project in June 2008. A number of surveys were undertaken including a survey of 2000 rural landholders and 48 stakeholder organisations, which included 23 non-Government and 25 Government organisations. The outputs of the project included an atlas of landholder beliefs and attitudes about NRM and reports on support for Landcare groups, engagement of stakeholder organisations, Aboriginal people's views on "caring for country" and the CMA's own institutional capacity.



Workshops were held to discuss the survey findings with the Board, staff and stakeholders and an action plan is to be developed in response to the main issues. This was the first in a series of benchmarking studies proposed and has provided the basis for future comparisons and the assessment of change across time. The CMA will use future data to provide a basis for developing initiatives in relation to increasing capacity and effectiveness and continuing to adaptively manage their community engagement activities.



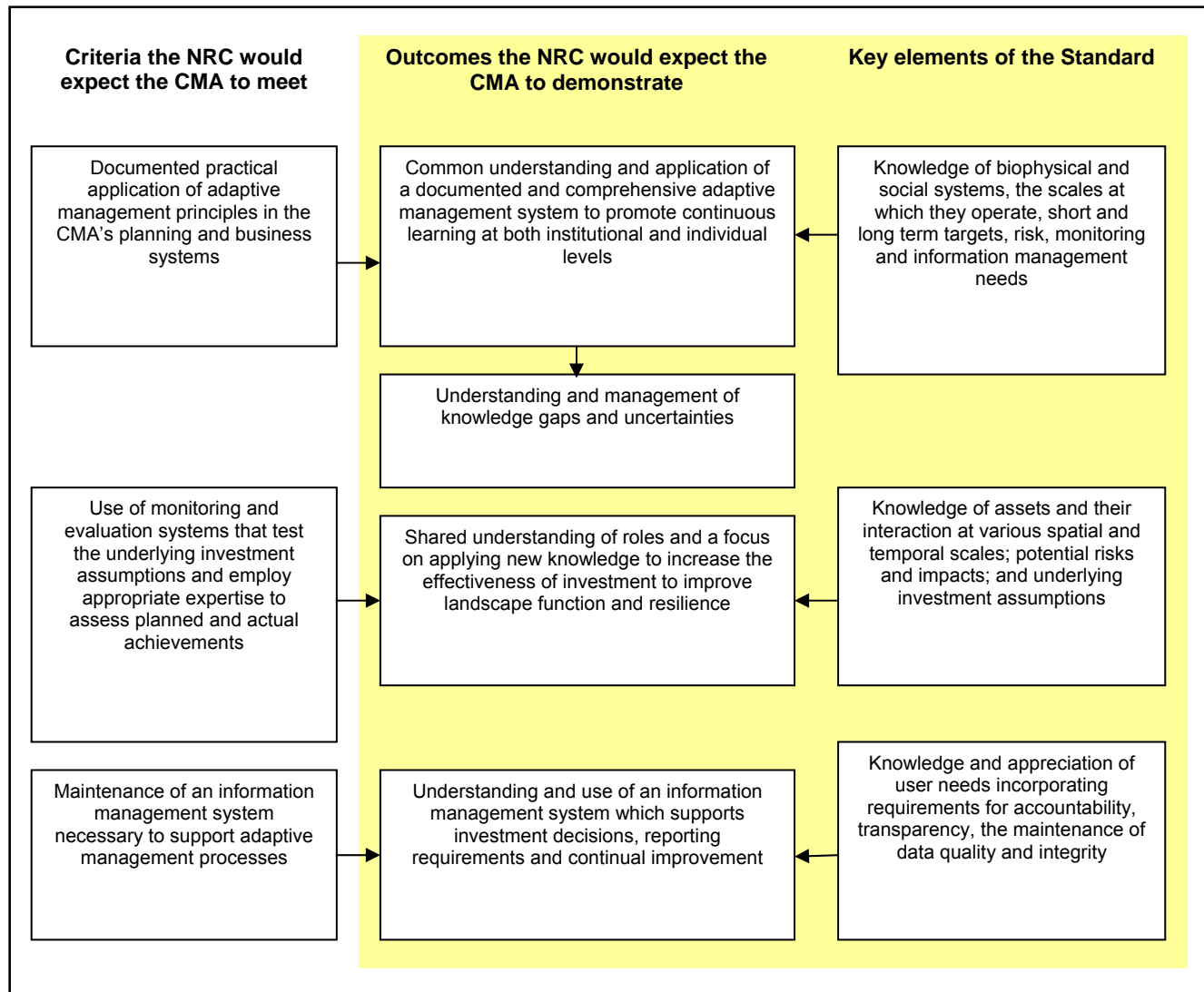
5. Effectively Using Adaptive Management

In the fourth line of inquiry, the auditor assessed whether the CMA was effectively using adaptive management. It looked at whether the CMA:

- ▶ Had documented the practical application of adaptive management principles to its planning and business systems.
- ▶ Had monitoring and evaluation systems that test its underlying investment assumptions and used appropriate experts to assess planned and actual achievements.
- ▶ Maintained information management systems necessary to support the adaptive management process.

Each of these criterion is shown in Figure 5.1, together with the elements of the Standard that are most relevant to meeting it effectively, and the CMA behaviour and other outcomes the NRC would expect to see if the CMA is using these elements of the Standard.

Figure 5-1 The framework the auditor used to assess whether the CMA was effectively using adaptive management



The sections below discuss each criterion in more detail, including why it is important and what the audit found in relation to it.

5.1 Adaptive management principles in planning and business systems

Adaptive management is 'learning by doing'. It is a structured, iterative process of decision-making that is intended to gradually reduce uncertainty and improve performance through monitoring, evaluation and response. It adds transparency and accountability to decision-making and the allocation of resources, while providing a framework for learning and ongoing improvement.

At a practical level, it is important that CMAs document within their planning and business systems how staff can apply adaptive management principles. This will help ensure their staff and collaborators can readily apply those principles in the many, diverse circumstances in which they work.



The audit found the CMA had a comprehensive understanding of adaptive management principles, documented in its Monitoring, Evaluation Reporting and Improvement (MERI) Plan. The CMA Board and staff had actively implemented adaptive management as part of the governance of the organisation, implementation of its investment programs, sub-regional planning processes and internal audits. The CMA had actively promoted adaptive management as part of the culture of the organisation.

The MERI Plan supported adaptive management by providing a framework for the identification and implementation of adaptive responses to the monitoring and evaluation. Adaptive management was also one of the key evaluation principles of the strategy. The CMA had recently revised its MER Plan and has now developed the MERI Plan in response to Caring for our Country Requirements. It had not yet developed supporting documentation to assist with the implementation of the MERI Plan at a project and regional scale.

Projects inspected during the audit demonstrated that the CMA had used structured learning processes in the delivery of programs including the Monaro Grassland Program, Mulloon Creek Natural Sequence Farming demonstration and the Southern Rivers Bush Incentives Program (SRBI). Each of these projects had been set up to include ongoing monitoring or evaluation processes as a means of testing management approaches. Further information on the application of an adaptive management framework for the Southern Rivers Bush Incentives Program is provided in Box 5.1 and for the Monaro Grassland Program in Box 3.1.

In respect to the Standard, the CMA:

- ▶ Demonstrated it had documented and adopted adaptive management processes to support the implementation of its CAP (*Monitoring and evaluation and Risk management*).
- ▶ Could not demonstrate that it had developed detailed supporting documentation to implement the MERI Plan at a project and regional scale (*Monitoring and evaluation; Risk management; and Determination of scale*).

5.2 Monitoring and evaluation system

To effectively apply adaptive management principles, CMA's programs need to be designed and delivered in ways that facilitate structured learning. For example, investment programs need to record what changes to defined indicators are expected to result from the management actions within the program. Only then can CMAs undertake quantitative monitoring of these actions, and evaluate how successful they were in producing the expected changes.

It is not enough for a CMA to monitor and evaluate whether its projects have delivered the expected outputs (for example, that the expected quantity of native grasses were planted, or that the expected length of fencing was installed). It also needs to test whether or not the assumptions about how each management action would lead to changes in landscape function were correct and so resulted in these changes (for example, whether fencing or revegetation of a riparian zone resulted in improved water quality and riverine ecosystem health). In addition, it needs to use experts with appropriate skills and knowledge in assessing its planned and actual results. This will allow it to apply new knowledge – gained from the monitoring and evaluation process and other sources – to increase the effectiveness of ongoing and future projects in improving landscape function and resilience.



As outlined in Section 5.1, the audit found the CMA had recently developed a good MERI Plan, but that it still needed to complete supporting documentation and implement it at a project and regional scale. While the Plan was developed to meet *Caring for our Country* requirements, the CMA had expanded its MERI Plan to encompass other key themes.

The audit found that the CMA had implemented monitoring and evaluation processes that had tested the underlying assumptions and collected information at the appropriate scale. The CMA had implemented a number of significant flagship programs in the region that had well-developed evaluation processes, research and development components and adequate monitoring of targets. The scope and purpose of these programs had been well defined through extensive planning and had been implemented over a number of years. The CMA, through the Southern Rivers Bush Incentive Program (a market based instrument), had evaluated each incentive round and had incorporated the learning into the implementation of the next round, and had adopted a state-wide methodology to assess the recovery of treated sites. The CMA, through the Monaro Grassland Program, had implemented a five-year research and development project to trial conservation measures and sustainable grazing practices.

The CMA had not adopted these processes rigorously for all projects and programs implemented through its investment strategy. Data collection at the project level was not consistent and had not always provided activity level information for reporting on implementation of catchment targets.

The audit found that while the CMA had tested underlying assumptions and knowledge at a project scale, and more broadly across its biodiversity theme, it had not extended this approach consistently at a regional scale by continuing to collect and analyse new knowledge and test assumptions relevant to its activities across all themes.

In respect to the Standard, the CMA:

- ▶ Demonstrated it had implemented processes to test underlying assumptions in support of the delivery and evaluation of programs (*Collection and use of knowledge*).
- ▶ Could not demonstrate it had consistently implemented monitoring and evaluation across all programs (*Risk Management and Monitoring and evaluation*).

5.3 Information management systems that support adaptive management

CMAs need relatively sophisticated information management systems to support adaptive management. For example, these systems need to keep track of the changes in landscape function expected as a result of the management actions within a project, and provide ready access to this and other necessary information when the project is being evaluated and decisions on improving its effectiveness are being made. These systems also need to keep track of new knowledge that is derived from the monitoring and evaluation process and other sources, so this can be used in making decisions.

The audit found the CMA had a number of information management systems that supported monitoring and adaptive management processes through the collection of project data that supported future planning processes and CAP implementation. However, the audit found the CMA's information management systems were still under development and had not been consistently used to record, track and report on progress towards implementation of targets.

The audit identified a number of information systems were being used to support the monitoring of project outcomes and track implementation of CAP targets, including the Southern River Project



Database, Land Management Database (LMD) and the CMA's financial management system. The LMD was used to store specific project activity information and provide links to other site information data such as biophysical data or site monitoring photos. As a geographic information system (GIS) based tool, it demonstrated the linkage of projects across the landscape. The Southern Rivers Project Database was used to manage project level information for reporting to investors, and allowed the CMA to run queries, such as adding up project outputs from across projects to measure progress towards CAP management targets. The CMA had also commenced using software to provide integrated reporting of project information to the Board and government. Larger programs such as the Southern Rivers Bush Incentives Program had developed purpose built systems to track implementation of the program and site details.

In respect to the Standard, the CMA:

- ▶ Demonstrated it had developed information management systems that could support adaptive management and the delivery and tracking of CAP targets (*Information Management and Monitoring and Evaluation*).
- ▶ Could not demonstrate it was consistently collecting and recording data in the information system (*Collection and use of knowledge, and Monitoring and evaluation*).

Box 5.1: A proactive approach to adaptive management – Southern Rivers Bush Incentives

A critical element of NRM investment is the documentation and practical application of adaptive management principles in the delivery of CMA projects. The Southern Rivers Bush Incentives (SRBI) Pilot Program demonstrates a robust approach to adaptive management from project design through to the evaluations completed at the end of each round. The program had a well-developed evaluation process, research and development components and good monitoring of targets.

The rationale of SRBI was to bring under conservation management a minimum of 30% of the original distribution of each native vegetation community type in Southern Rivers region. SRBI used a market based investment approach through which landholders bid for a limited number of conservation management contracts.

Prior to the commencement of the SRBI Pilot Program in 2004, the CMA developed an Evaluation Strategy for the pilot program to determine if objectives were achieved and to improve the model for future use. The Evaluation Strategy included five components and evaluation questions to be addressed under each component. An Evaluation Report was prepared at the end of each round of SRBI allowing lessons to be incorporated into the implementation of the next round. For example, The 'Final Report and Evaluation October 2008' identified that there was a significant fall off in bids submitted following site assessment. This resulted in a high degree of staff time wasted in preparation of management plans that did not lead to contracts. To address this issue a new funding delivery system was proposed for future rounds of the program.

In terms of monitoring of CAP targets, the CMA had developed purpose built systems to track implementation of the SRBI program and site details. This included the generation of reports from projects across and within rounds against targets, for example, the area of vegetation types under Bush Incentives contracts. Site monitoring included the establishment of photo points and the CMA had developed a Site Monitoring Sheet for landholders with instructions on how to conduct photo point monitoring. Interviews with CMA staff indicated that the site monitoring data had been captured but had not yet been analysed, although this is planned.



Attachment 1

Conclusions, Suggested Actions and CMA Response



This Section provides a table summarising conclusions of GHD’s audit of the implementation of the Southern Rivers CMA CAP, the actions the auditors suggested the CMA take to improve this implementation and a summary of Southern Rivers CMA’s response to these suggested actions. The NRC expects the CMA Board to monitor the completion of these actions and may review these activities in future audit work.

CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
Line of inquiry #1 - Has Southern Rivers CMA effectively prioritised its investments to promote resilient landscapes that support the values of its communities?		
<p>Criteria 1.1: <i>whether the CMA had a commonly understood definition of what constitutes resilient landscapes in their region.</i></p> <ul style="list-style-type: none"> ▶ The CMA had a common understanding of resilience from a biophysical, social and economic perspective. The CMA had developed an understanding of key assets and threats through the sub-regional planning process, in collaboration with stakeholders. ▶ The Board and Executive were able to demonstrate how the CMA had considered resilience across its sub-regions and the challenges it faced in trying to measure and monitor the change in asset condition ▶ Project staff was able to discuss resilience and identify the relationships between the management activities they were delivering or facilitating to improve landscape condition and resilience. 	<p>The auditor suggests that the CMA take the following actions:</p> <ol style="list-style-type: none"> 1. Use the CAP review process to update the CAP with new knowledge from the sub-regional planning process. 	<p>Southern Rivers CMA agrees with the suggested action.</p> <p>Southern Rivers CMA will utilise knowledge from the sub-regional planning process as a key driver in revising the CAP.</p> <p>This action will be completed by June 2011.</p> <p>Southern Rivers CMA notes that the current NRM target hierarchy, requiring one to one relationships between targets, is a constraint to how CAPs are structured and implemented.</p> <p>Southern Rivers CMA suggests a more flexible approach, possibly focussed on the conservation of landscape assets, be tested in the revision of the CAP. It is believed this approach will better enable the planning and delivery of integrated NRM outcomes.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
<p>Criteria 1.2: <i>whether the CMA had a system that ranked investment options, which incorporated the best available information and multiple CAP target achievement</i></p> <ul style="list-style-type: none"> ▶ The CMA had a documented system for ranking investment options. The CMA's system used prioritisation matrices across themes for delivery of investment in the Southern Rivers region that incorporated best available knowledge and was transparent and repeatable. ▶ The CMA had not yet implemented within the priority setting system an integrated assessment across themes that could support delivery of multiple outcomes. 	<p>The auditor suggests that the CMA take the following actions:</p> <ol style="list-style-type: none"> 2. Develop a process within the prioritisation system that allows integrated assessment across themes and supports delivery of multiple outcomes. 	<p>Southern Rivers CMA agrees with the suggested action.</p> <p>Southern Rivers CMA's investment prioritisation systems will ensure that projects deliver multiple outcomes where appropriate.</p> <p>Investment decisions will be informed by an integrated assessment of projects across themes.</p> <p>This will be completed by June 2010.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
<p>Criteria 1.3: <i>whether the CMA had a system that that ensures short and long-term investment priorities are consistent with each other and integrated with other planned NRM targets</i></p> <ul style="list-style-type: none"> ▶ The CMA had systems to manage the consistent and integrated implementation of long and short-term priorities in its region. ▶ The CMA Board and Executive Management Team had active involvement in review of the prioritisation process for investment across the region, and had developed guiding principles for staff and stakeholders to support the development of investment applications across the region. ▶ The CMA had developed a sub-regional planning process delivered through local reference groups that had allowed it to adapt to changes in investor priorities and levels of funding in the region. 	<p>There are no suggested actions for this criterion.</p>	<p>Southern Rivers CMA notes that planning and prioritising at a range of scales enables site scale investments to be clearly linked to sub-regional, regional, State and National priorities.</p> <p>Southern Rivers CMA will continue to implement systems to ensure projects deliver short term investor priorities in a way that also delivers long term investment and NRM priorities.</p> <p>Southern Rivers CMA considers that clearly defined and consistent State and National priorities are fundamental to enabling CMAs to achieve this.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
Line of inquiry #2 – Have the Southern Rivers CMA’s vegetation projects contributed to improved landscape function?		
<p>Criteria 2.1: <i>whether the CMA has documented expected long-term project outcomes</i></p> <ul style="list-style-type: none"> ▶ The CMA had established systems to document its project’s expected long-term outcomes within its project documentation templates. However, the internal project documentation templates had not always been clearly and consistently documented for the project visited. ▶ Despite long-term outcomes not always being clearly documented, CMA staff had a common understanding of the relationship between short and long-term goals, realistic goals for action and risk management. ▶ The CMA had applied risk management for the projects inspected and some of the projects inspected had conducted a more detailed risk assessment. However, there was insufficient evidence that the risk mitigation measures were monitored and risk profiles reviewed consistently. 	<p>The auditor suggests that the CMA take the following actions:</p> <ol style="list-style-type: none"> 3. Ensure the system for documenting for long-term project outcomes in internal documents is consistently applied. 4. Ensure the risk mitigation measures are monitored throughout all projects and the risk profile reviewed and updated as necessary. 	<p>Southern Rivers CMA agrees with the suggested actions.</p> <p>Southern Rivers CMA is currently implementing these actions through the project management system.</p> <p>Each project will have clearly defined outcomes hierarchies, with explicit links to the Southern Rivers CMA MERI Plan.</p> <p>Project monitoring systems and practices will include regular assessment and review of project risks.</p> <p>These actions will be complete by June 2010.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
<p>Criteria 2.2: <i>whether the CMA successfully achieves project outcomes, and maximised opportunities to add further value</i></p> <ul style="list-style-type: none"> ▶ For the projects inspected, project outputs had been successfully achieved on the ground. ▶ The CMA had sought to and been successful in adding greater value to projects. ▶ The CMA had developed long-term collaborative project partnerships and, improved appreciation of natural resource values in its region. 	<p>There are no suggested actions for this criterion.</p>	<p>Southern Rivers CMA will continue to ensure that projects achieve real and measurable improvements to the condition of our natural resources.</p> <p>A key strategy in achieving this is to foster collaborative partnerships that maximise the investment in and delivery of NRM outcomes.</p>
<p>Criteria 2.3 <i>whether the CMA's projects are attracting additional resources to match CMA funding</i></p> <ul style="list-style-type: none"> ▶ All projects inspected demonstrated on average approximately 50% of total project costs in in-kind and monetary contributions. ▶ The CMA has been successful in encouraging private landholders to make ongoing in-kind contributions and long-term commitments. ▶ The benefit of linkages to other projects had not always been documented in the project documentation. 	<p>The auditor suggests that the CMA take the following actions:</p> <ol style="list-style-type: none"> 5. Where relevant, seek to document all project benefits to better demonstrate the leverage that some of the projects are providing. 	<p>Southern Rivers CMA agrees with the suggested action.</p> <p>Southern Rivers CMA is currently implementing this action through the project management system.</p> <p>Additionally, Southern Rivers CMA is working in partnership with South East Landcare to develop systems that support groups in capturing and reporting on volunteer effort in NRM activities.</p> <p>These actions will be complete by June 2010.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
<p>Criteria 2.4 <i>whether the CMA had a system to monitor ongoing achievement of project.</i></p> <ul style="list-style-type: none"> ▶ The CMA had a developed good system to monitor ongoing achievement of projects at a project and broader scale. ▶ Not all projects had clear reporting against project outputs, or details on how this information was to be used. 	<p>The auditor suggests that the CMA take the following actions:</p> <ol style="list-style-type: none"> 6. As part of regular review of implementation of the MERI Plan ensure the system to collect and record project and program data is applied consistently. 	<p>Southern Rivers CMA agrees with the suggested action.</p> <p>Southern Rivers CMA is currently implementing this action through the Southern Rivers MERI Plan and through the project management system.</p> <p>These actions will be completed by June 2010.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
Line of inquiry #3 - Has the Southern Rivers CMA effectively engaged its communities?		
<p>Criteria 3.1 <i>whether the CMA has identified community groups and stakeholders it must consider in planning and undertaking work</i></p> <ul style="list-style-type: none"> ▶ The CMA had taken a systematic approach to identify, document and understand the key community groups and stakeholders it must consider in planning and undertaking its work through its stakeholder matrix and Stakeholder Benchmarking Survey. ▶ The CMA indicated that it planned to regularly repeat the survey to monitor changes in community values and capacity. ▶ CMA Board and staff had a shared understanding of regional knowledge and capacity and community values. ▶ The CMA demonstrated that it is continually working to building community knowledge and capacity in NRM so that the community was able to respond to changing funding priorities, hence building resilience in its social networks. 	<p>There are no suggested actions for this criterion.</p>	<p>Southern Rivers CMA will continue to ensure that communities are effectively engaged in NRM activities across the Southern Rivers region.</p> <p>Southern Rivers CMA notes that sustainable investment in NRM outcomes can only be achieved with effective engagement of people.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
<p>Criteria 3.2 <i>whether the CMA is implementing an engagement strategy appropriate for different community groups and stakeholders</i></p> <ul style="list-style-type: none"> ▶ The CMA was meaningfully engaging with its community and stakeholder through building trust and promoting the two-way sharing of knowledge, guided by its <i>Engagement and Partnership Strategy 2008-2011</i>. ▶ The CMA's engagement approach included 'place-based' engagement and established six sub-regional local management teams and reference groups across the region. ▶ The CMA had also implemented a range of other strategies to engage different sectors of its community, including specific Communication Strategies for specific organisations. 	<p>There are no suggested actions for this criterion.</p>	<p>Southern Rivers CMA will continue to evolve its community engagement systems to support improved practices.</p>
<p>Criteria 3.3 <i>whether the CMA is implementing a communications strategy that promotes collaboration, sustainable behavioural change and feedback</i></p> <ul style="list-style-type: none"> ▶ The CMA has developed sophisticated approaches to communicate its messages and for hearing and responding to messages sent by their communities. ▶ The CMA had developed strong relationships with stakeholders and the community, and was playing an important role in sustainable behavioural change. 	<p>There are no suggested actions for this criterion.</p>	<p>Southern Rivers CMA will be revising the Communication Strategy to increase the profile of NRM achievements in the Southern Rivers region.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
Line of inquiry #4 - Has the Southern Rivers CMA effectively used adaptive management?		
<p>Criteria 4.1 <i>whether the CMA had documented the practical application of adaptive management principles in its planning and business systems</i></p> <ul style="list-style-type: none"> ▶ The CMA had a comprehensive understanding of adaptive management, and had documented this through the development of its MERI Plan. ▶ Prior to the development of its MERI Plan the CMA had been actively applying adaptive management on the projects visited. ▶ The CMA Board and staff had actively implemented adaptive management as part of the governance of the organisation, implementation of its investment programs, sub-regional planning processes and internal audits. 	<p>There are no suggested actions for this criterion.</p>	<p>Southern Rivers CMA will continue to ensure that adaptive management principles are implemented across the organisation.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
<p>Criteria 4.2 <i>whether the CMA had monitoring and evaluation systems that test underlying investment assumptions and employ appropriate expertise to assess planned and actual achievement</i></p> <ul style="list-style-type: none"> ▶ The CMA had implemented monitoring and evaluation processes principally through its MER Plan, and now through its MERI Plan, however the CMA had not yet developed detailed supporting documentation to assist project level and regional implementation of the MERI Plan. ▶ The CMA had implemented well-developed evaluation processes, research and development components and adequate monitoring of targets for some of the inspected projects. However, the CMA had not adopted these processes rigorously for all projects and programs implemented through its investment strategy. ▶ The CMA had tested underlying assumptions and knowledge through the delivery of some of the projects inspected, however it had not extended this approach to a regional scale by continuing to collect and analyse best available knowledge to test assumptions relevant to its activities across all themes. 	<p>The auditor suggests that the CMA take the following actions:</p> <ol style="list-style-type: none"> 7. Further develop detailed supporting systems, procedures, tools and document templates for projects and programs as part of the implementation of the MERI Plan. 8. Regularly review implementation of the MERI Plan to ensure consistent application and to identify opportunities for continual improvement. 	<p>Southern Rivers CMA agrees with the suggested actions.</p> <p>Southern Rivers CMA is currently carrying out these actions through the implementation of the MERI Plan and improved Executive Management Team processes.</p> <p>These actions will be completed by June 2010.</p> <p>Southern Rivers CMA notes that it is not the role of CMAs to monitor the change in landscape condition, nor to test the underlying assumptions related to investment at a landscape scale. This is clearly the role of State Government agencies, working in partnership with CMAs and the research sector.</p> <p>Southern Rivers CMA will continue to advocate for improved monitoring and research into NRM changes at a landscape scale.</p>



CONCLUSION	SUGGESTED ACTIONS	CMA RESPONSE
<p>Criteria 4.3 <i>whether the CMA maintained an information management system necessary to support adaptive management</i></p> <ul style="list-style-type: none"> ▶ The CMA had a number of information management systems that supported monitoring and adaptive management processes through the collection of project data that supported future planning processes and CAP implementation, including the Southern River Project Database, Land Management Database (LMD) and the CMA's financial management system. ▶ Some of the CMA's information management systems (i.e. LMD) were still under development and had not been consistently used to track and report on progress towards implementation of targets. 	<p>The auditor suggests that the CMA take the following actions:</p> <ol style="list-style-type: none"> 9. Review and determine priorities for development of the information system including integrating MERI Plan requirements. 10. Ensure that the MERI Plan establishes clear procedures for the collection and reporting of data within the information management system. 	<p>Southern Rivers CMA agrees with the suggested actions.</p> <p>Southern Rivers CMA is currently carrying out these actions through the implementation of the MERI Plan.</p> <p>These actions will be completed by June 2010.</p> <p>Southern Rivers CMA notes that increased investment by State Government agencies in the development and implementation of consistent information management systems is fundamental to CMAs being able to effectively manage information.</p>



Attachment 2
About this Audit



Audit mandate

The NRC is required to undertake audits of the effectiveness of the implementation of catchment action plans (CAPs) in achieving compliance with those State-wide standards and targets as it considers appropriate.²

The NSW Government has adopted an aspirational goal to achieve resilient landscapes that support the values of its communities.³ It intends to achieve this by encouraging natural resource managers, such as each Catchment Management Authority (CMA), to make high quality decisions, focused through a coherent set of targets.⁴ The NSW State Plan⁵ establishes the State-wide targets for natural resource management (NRM).

CMAs have developed CAPs that express how each specific region can contribute to the aspirational goal and the State-wide targets. The *Southern Rivers Catchment Action Plan*⁶ identifies the key natural resource issues (or themes) that need to be managed in the region, including biodiversity, water, land and community. Within each of these themes, the CMA has identified:

- ▶ Catchment targets, for longer-term improvements in resource condition that will contribute to achievement of the State-wide targets
- ▶ Management targets, which identify shorter-term investment priorities that will contribute to achievement of the resource condition targets.

Audit objective

This audit assessed the effectiveness of Southern Rivers CMA in promoting resilient landscapes that support the values of its communities, within the scope of the CAP.

Southern Rivers CMA is now implementing the CAP, through a mix of programs and projects some of which use vegetation to enhance landscape function, to lead to the aspirational goal of resilience.

Lines of inquiry

In order to assess the effectiveness of CMA work, the NRC directed the audits to answer the following questions:

1. Is the CMA effectively prioritising its investments to promote resilient landscapes that support the values of its communities?
2. Are the CMA's vegetation projects contributing to improved landscape function?
3. Is the CMA effectively engaging its communities?
4. Is the CMA effectively using adaptive management?

The NRC identified that these four key aspects of CMA work should strongly influence effectiveness in achieving resilient landscapes, and promote maximum improvement for Southern Rivers CMA for this stage in their development.

² *Natural Resources Commission Act 2003, Section 13 (c)*

³ As recommended by the NRC in *Recommendations – State-wide standard and targets, September 2005*.

⁴ *Ibid.*

⁵ See Priority E4 in, NSW Government (2006) *A new direction for NSW, NSW Government State Plan*, November 2006

⁶ Southern Rivers CMA, *Southern Rivers Catchment Action Plan, 2006*



Audit criteria	<p>To help report on each line of inquiry, the auditor used the criteria identified below in Table 1, the audit analysis structure.</p> <p>These criteria address:</p> <ul style="list-style-type: none">▶ expected documentation of the particular key aspect of CMA work▶ expected implementation of plans and decisions▶ expected evaluation and reporting of the performance of the CMA work. <p>The criteria were derived from the elements of each line of inquiry, and from the general criteria of the Standard and state-wide targets.</p> <p>The NSW Government adopted the <i>Standard for Quality Natural Resource Management</i> (the Standard), which identifies seven components that are commonly used to reach high quality natural resource decisions. CMAs must comply with the Standard⁷, using it as a quality assurance standard for all planning and implementation decisions.</p>
Audit scope	<p>As a sample of the entire range of NRM investments, the audit work was focused on CMA programs and projects that use vegetation to improve landscape function.</p> <p>The NRC considered this to be the appropriate focus as vegetation remains a key tool for CMAs to use to achieve integrated NRM outcomes. This is due to a number of factors, including the lack of certainty in the management framework for other aspects of NRM such as water.</p> <p>As most NRM programs and projects contribute to more than one NRM target, the NRC expects audited projects to also contribute to other targeted outcomes, such as river health and threatened species. The GHD audit sought to audit the effectiveness of these contributions as they arise.</p>
Audit approach	<p>In September 2009, the audit team performed the following audit work:</p> <ul style="list-style-type: none">▶ interviewing a number of CMA Board and staff members, landholders and stakeholders external to the CMA▶ reviewing a range of CMA and public documents▶ visiting sites on five projects. <p>At the close of the audit field work, the audit team shared preliminary observations with the CMA.</p>
Audit methodology	<p>To plan and conduct this audit, the audit team followed the methodologies set out in the <i>Framework for Auditing the Implementation of Catchment Action Plans</i>, NRC 2007.</p>
Acknowledgements	<p>The audit team gratefully acknowledges the cooperation and assistance provided by the Southern Rivers CMA, partners and landholders in the Southern Rivers region. In particular we wish to thank the Chair, Pam Green, General Manager, Noel Kesby, and other CMA Board members and staff who participated in interviews, provided information and accompanied the audit team on site inspections across the region.</p>

⁷ Section 20 (c), *Catchment Management Authorities Act, 2003*



Table 1 Audit plan summary

Line of Inquiry 1	Is the CMA effectively prioritising its investments to promote resilient landscapes that support the values of its communities?
This line of inquiry was tested against the following criteria:	
Criterion 1.1	The CMA has a commonly understood definition of what constitutes resilient landscapes in their region.
Criterion 1.2	The CMA has a system that ranks investment options, which incorporates factors including scientific and local knowledge, socio-economic information, community and investor preferences, leverage of investment and multiple CAP target achievement.
Criterion 1.3	The CMA has a system that ensures short and long-term investment priorities are consistent with each other and integrated with other planned NRM targets.
Line of Inquiry 2	Are the CMA's vegetation projects contributing to improved landscape function?
This line of inquiry was tested against the following criteria:	
Criterion 2.1	The CMA has documented expected long-term project outcomes.
Criterion 2.2	The CMA is successfully achieving project outcomes, and maximising opportunities to add further value.
Criterion 2.3	The projects are attracting additional resources to match CMA funding.
Criterion 2.4	The CMA has a system to monitor ongoing achievements of projects.
Line of Inquiry 3	Is the CMA effectively engaging its communities?
This line of inquiry was tested against the following criteria:	
Criterion 3.1	The CMA has identified community groups and stakeholders it must consider in planning and undertaking work.
Criterion 3.2	The CMA is implementing an engagement strategy appropriate for different community groups and stakeholders.
Criterion 3.3	The CMA is implementing a communication strategy that promotes collaboration, sustainable behavioural change and feedback.
Line of Inquiry 4	Is the CMA effectively using adaptive management?
This line of inquiry was tested against the following criteria:	
Criterion 4.1	The CMA has documented the practical application of adaptive management principles in its planning and business systems.
Criterion 4.2	The CMA has monitoring and evaluation systems that test underlying investment assumptions and employ appropriate expertise to assess planned and actual achievement.
Criterion 4.3	The CMA maintains an information management system necessary to support adaptive management processes.



Attachment 3

The CMA and its Region



CMAs have a challenging task to encourage communities across their particular regions to improve how they manage natural resources on private land for the benefit of the landholders, the broader community and future generations.

This section provides context for the audit by summarising key features of the Southern Rivers region and Southern Rivers CMA. This context is important in considering both the way in which a CMA's effectiveness should be assessed and the options for improving that effectiveness.

The region at a glance

The Southern Rivers region covers more than 29,000 square kilometres of south-east NSW and extends three nautical miles offshore (CAP, Exec Sum, pg 14). It is bounded by Stanwell Park to the north, includes all coastal catchments to the Victorian border and extends westward to include the catchments of the Snowy, Genoa and Shoalhaven Rivers.

The map below shows the location of the Southern Rivers region. The regions diverse natural landscapes range from the temperate rainforests of the coast to the wide open grasslands of the Monaro, from extensive coastal estuaries and lakes to small upland freshwater wetlands and from marine waters to coastal streams. The landscape is dominated by many river systems including the Minnamurra, Kangaroo, Shoalhaven, Clyde, Deua, Tuross, Brogo, Moruya, Bega, Bemboka, Towamba, Genoa and Snowy Rivers. About 65% of the region is publicly managed (mostly in National Parks and State Forests or Crown lands). The remainder is privately managed agricultural, lifestyle and urban land (CAP, Section 1.1, pg 15).

Approximately 450,000 people live in the region and the population almost doubles during the summer holiday season (CAP, Exec Sum, pg 14). The region supports a range of land uses including agricultural industries, commercial and recreational fishing, aquaculture, water harvesting, heavy industry, forestry, surface and underground mining, urban and rural lifestyle development, tourism and recreation.

The region's ecosystems are under pressure from growing coastal settlements, land use practices, industrial and recreational use of natural resources and the introduction of pest species.

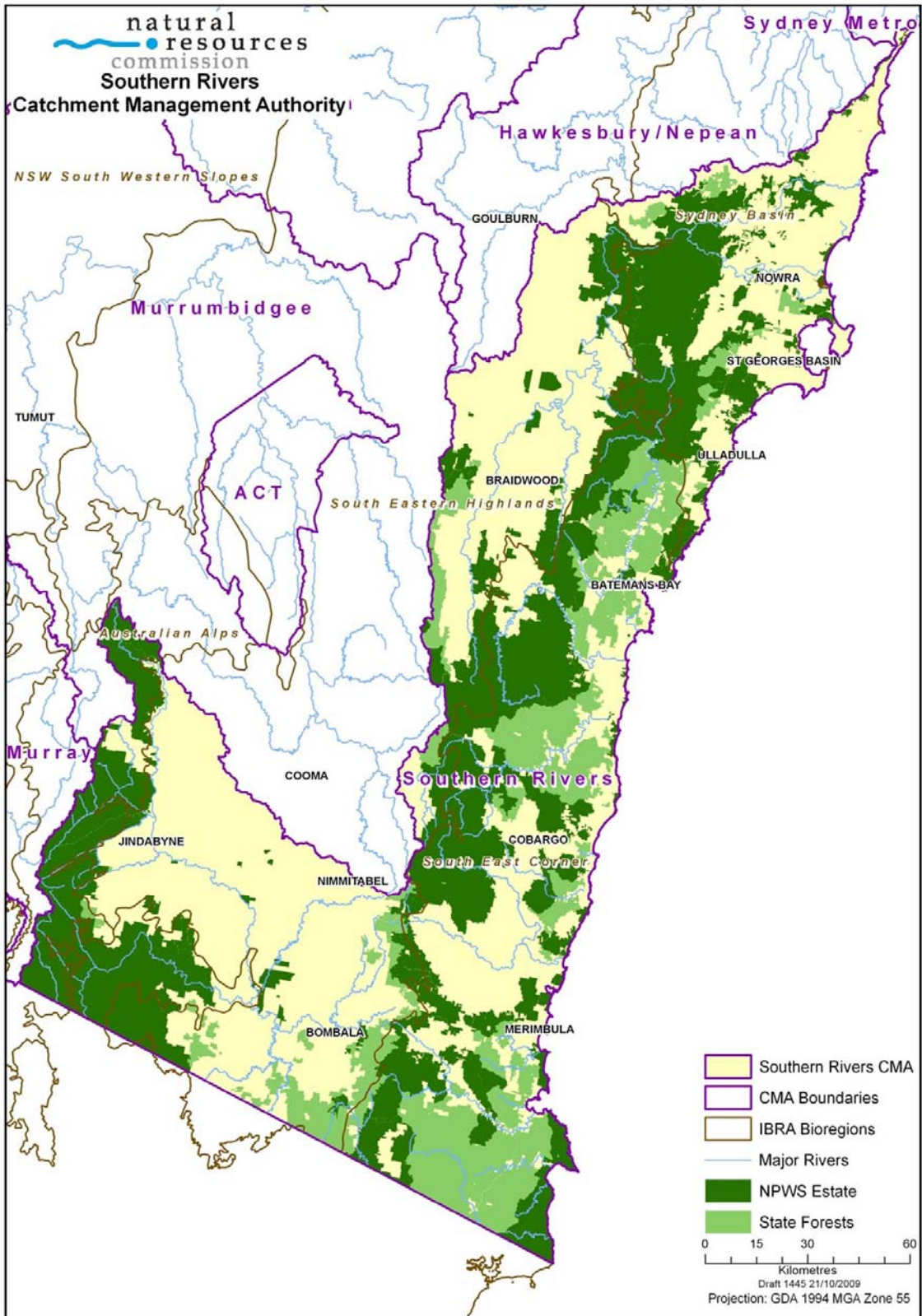


Figure A1 – Southern Rivers Catchment Authority Sub-Regions



The CMA at a glance

Southern Rivers CMA is a statutory body established under the *Catchment Management Authorities Act 2003* to facilitate and coordinate the management of natural resources in the Southern Rivers Region. Southern Rivers CMA reports directly to the NSW Minister for Climate Change, Environment and Water.

Southern Rivers CMA's responsibilities include involving local communities, farmers and other land managers, Landcare, government agencies, Aboriginal people, local government and industry in addressing the natural resource management issues facing the region. Through the CMA and its partnerships and programs, the NSW and Australian Governments provide funding for strategic on-ground works to help protect and restore natural resources across the landscape.

Southern Rivers CMA has a board of seven members, including a Chair, and a General Manager who heads up a small team of professional staff. The CMA has offices in Wollongong, Batemans Bay, Bega, Braidwood, Cooma and Nowra.

The amount of investment by the CMA over three financial years, including additional resources attracted against investment as reported by the CMA is shown in Table A3.1.

Table A3.1 Additional resources matched against investment⁸

Investment Period	Investment Amount (\$ mil)⁹	Additional Resources (\$ mil)
2006/07	14.139	33.708
2007/08	14.023	35.057
2008/09	12.895	32.237

⁸ Figures provided by the CMA during the audit site visits in September 2009, and during preparation of the audit report.

⁹ The sum of Category 2 (NSW and Federal Government) and Category 3 (all other sources) funding including interest. This figure excludes Category 1 (recurrent expenditure) funding.



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