



**Upgrading catchment action
plans: report on the pilot
upgrades in the Central West and
Namoi catchments**

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1 Introduction

In its *NSW 2021* plan, the NSW Government has committed to increasing devolved decision making at the regional scale by developing upgraded catchment action plans across the state by March 2013.¹ This report captures overarching lessons learned from piloting catchment action plan upgrades in the Central West and Namoi regions, and explains what the Ministers can do to ensure high-quality upgraded plans are developed across the rest of the state.

Catchment action plans are strategic regional plans for improving the health and resilience of our landscapes. Catchment Management Authorities (CMAs) first developed plans for each of New South Wales' 13 natural resource management regions in 2004-05. The plans identify what the community and government value about these landscapes, and explain what needs to be done to ensure long-term, sustainable management of a region's natural resources.

CMAs are now preparing to upgrade these plans in response to lessons from implementation, evolving policy settings and community values, new knowledge and best practices in natural resource management, and issues such as climate change.

The Central West and Namoi are the first regions to upgrade their catchment action plans. These plans were developed through a pilot process that allowed the CMAs, agencies and Natural Resources Commission (NRC) to trial new ways of achieving better regional planning in NSW. The pilots tested the use of resilience concepts, government and community collaboration and spatial products in the planning process.

The NRC advises the Minister for Regional Infrastructure and Services (the Deputy Premier) and the Minister for Primary Industries (the Ministers) on whether to approve catchment action plans. This advice is part of the NRC's wider program of independent auditing and reporting for:

- promoting excellence and driving continual improvement in CMAs' strategic planning and resource stewardship actions
- reporting to Government and other stakeholders on what is working in NRM, what needs fixing and how the regional model is progressing towards its stated policies and targets.

The NRC has assessed the upgraded Central West and Namoi plans.² The NRC found these plans are a significant improvement and recommends that the Ministers approve these plans. The new approaches to strategic planning trialled in the pilots have proved beneficial. The pilots showed how government and community collaboration, resilience concepts and spatial tools can enrich the planning process. The pilots also gave insights into how these approaches can be further improved when upgrading the remaining catchment action plans.

To get the most out of the upgraded plans, the Ministers should promote their co-ordinated implementation and adaptive management. The plans can also help in developing and delivering other state and national programs and policies. To assist the remaining upgrades, the Ministers should seek whole-of-government support to facilitate planning across the rest of NSW, improve social-ecological systems analysis and develop regional scale spatial capacity.

¹ NSW Government (2011), *NSW 2021 – a 10 year plan for our State*, September. At <http://2021.nsw.gov.au/>

² This function is specified in Section 13 of the *Natural Resources Commission Act 2003* and Sections 22 and 23 of the *Catchment Management Authorities Act 2003*.

2 Upgrading catchment action plans

The first catchment action plans were developed in 2004-05, at a time when CMAs and the regional model for natural resource management in NSW were in a relatively early stage of development. The NRC recommended that these plans be approved, on the condition that the CMAs made progress towards improving the quality of their plans and underpinning business systems over time.

Since 2004-05, continuity and experience has allowed NSW's regional model to mature considerably and CMAs' knowledge and strategic capabilities to grow. At the same time, six years of experience, audits and progress reporting has allowed the NRC, CMAs and agencies to identify priorities for improvement which provide the context for upgrading catchment action plans.³

NRC progress reports and audits have consistently demonstrated that to achieve integrated catchment management and effective use of limited investment we need:

- a more co-ordinated approach to natural resource planning and management by aligning CMA, government and community efforts at a policy level and on the ground
- access to useful, integrated science and knowledge that can inform decision making, including better spatial analysis and representation
- whole-of-government adaptive management, so CMAs and agencies can share experiences and knowledge to build on what is working.

Importantly, in NSW there has been a clear shift towards greater collaboration between agencies and CMAs, and commitment to a whole-of-government approach to regional resource planning and management. In its *2010 Progress Report*, the NRC described a vision for catchment action plans where they help align and deliver a range of state policies, non-statutory and statutory plans, and NRM-related Australian and NSW Government programs at the regional scale.⁴

This model is illustrated in **Figure 1**.

³ The NRC has already assessed and recommended all 13 of the current CAPs in place across NSW, and we have audited how effectively all CAPs are being implemented. Murray CAP has been audited twice, and the NRC is in the process of auditing Lower Murray Darling CMA for the second time. The NRC has also produced three biennial progress reports for the NSW Government summarising progress across the state, and areas for improvement. Refer to www.nrc.nsw.gov.au for all publications.

⁴ Natural Resources Commission (2010), *Progress towards healthy resilience landscapes: Implementing the Standard, targets and catchment action plans*, December.

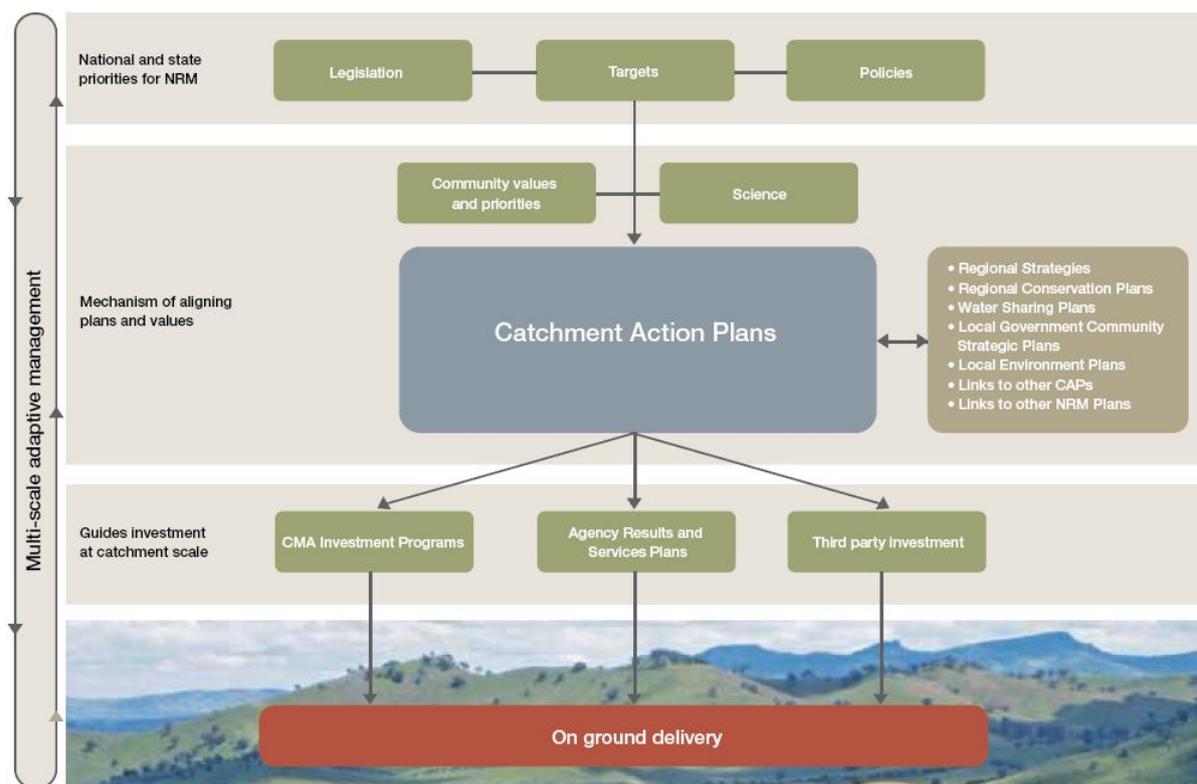


Figure 1: CAPs as integrated strategies for managing natural resources in a catchment region

How we think about landscapes is also changing. There is growing recognition that landscapes are made of dynamic social and ecological systems, and that management strategies should focus on building social, economic and environmental resilience in the face of future uncertainty and climate change. Systems thinking and resilience concepts have emerged as new frames for analysing and managing a region’s natural resources.

There are also significant upcoming changes in the external policy environment at state and national levels; for example the NSW Government’s Strategic Regional Land Use Plans, the Australian Government’s planned Clean Energy Future, Carbon Farming Initiative, National Wildlife Corridors Plan and the Murray Darling Basin Plan. Regional catchment action planning has a role to play in informing and helping to implement these plans and policies.

2.1 Piloting upgraded catchment action plans

To explore the priorities and opportunities for improving NSW’s natural resource management, the NRC, agencies and the Central West and Namoi CMAs piloted a process for upgrading and assessing catchment action plans.

The pilot process allowed CMAs, agencies and the NRC to test the feasibility of new approaches to collaborative planning and landscape analysis. In particular, the pilot provided a structured, collaborative learning environment to test the feasibility of and explore approaches for:

- whole-of-government and community catchment planning
- using systems thinking and resilience concepts for analysing and managing landscapes
- spatially representing priorities and values to align with statutory planning.

The pilot process has highlighted the CMAs' valuable strategic planning capabilities and knowledge, and their current growth and future potential as leaders in regional natural resource management. The pilots led to a better understanding of what can be achieved by upgrading catchment action plans, and what aspects of strategic catchment planning might need more time and support. The pilot also allowed the NRC to test, calibrate and refine its framework for assessing upgraded catchment action plans.⁵

The pilot process concluded in May 2011. The resulting Central West and Namoi pilot catchment action plans have now been finalised and submitted to the NRC for assessment and to the Ministers for approval and implementation.⁶

2.2 The NRC's assessment process

The NRC advises the Ministers on whether a catchment action plan meets the required outcomes of the *Standard for Quality Natural Resource Management* (the Standard), and whether, with effective implementation, the plan will lead to progress towards the state-wide targets for natural resource management.⁷

The NRC collaborated with CMAs and government representatives to develop an assessment framework setting out our expectations for upgraded plans, and how we would develop advice to the Ministers. The NRC's assessment criteria and attributes are provided as **Attachment 1**, while the NRC's overall assessment process is outlined in **Attachment 2**.

2.3 Reporting and approval

Following consultation with CMAs and agencies, the NRC produces a final recommendation report for each plan advising the Ministers on:

- whether the Ministers should approve the plan
- what conditions (if any) should apply, and mechanisms for ensuring conditions are met
- what the CMAs and Government can do to ensure effective implementation and future improvement of the plans.

The NRC has produced separate recommendation reports to the Ministers for the upgraded Central West and Namoi catchment action plans.⁸

The Ministers are responsible for approving these plans. In previous years the responsible Minister has sought Cabinet endorsement of the plans.

⁵ NRC (2011), *Framework for assessing and recommending upgraded catchment action plans*, August

⁶ Central West: August 2011, available at <http://cw.cma.nsw.gov.au/AboutUs/2011capconsultation.html>;
Namoi: September 2011, available at <http://www.namoi.cma.nsw.gov.au/931351.html?5>.

⁷ Natural Resources Commission (2005), *Standard for quality natural resource management*, September; Natural Resources Commission (2005), *State-wide targets*, September.

⁸ See <http://nrc.nsw.gov.au/Workwedo/Catchmentactionplanreviews.aspx>

3 Lessons from the pilot upgrades

The upgraded Central West and Namoi plans have made significant progress against the NRC's expectations for upgraded catchment action plans, while also revealing the aspects of strategic regional planning that need more time, consideration and support.

Importantly, these innovative and ambitious plans and planning processes are the first to put into practice approaches and frameworks that have previously been theoretical concepts. The new approaches to strategic planning trialled in the pilot upgrades have been beneficial. In particular, the pilots showed the value of whole-of-government and community planning, how it can work and how it can be improved further in the remaining upgrades. Similarly, applying resilience concepts and using spatial tools proved useful in analysing regional landscapes and identifying priorities, although there is also room for more progress in these areas.

The following points set out what we have currently learnt through upgrading these catchment action plans:

- **CMA have demonstrated their depth of regional knowledge and strategic planning capabilities** – CMAs have shown they have the knowledge and strategic capacity required to help achieve the NSW Government's target of greater devolution of decision making, funding and control in catchment management. The CMAs have responded well to being given challenging guidelines for upgrading their regions' plans, and being given the freedom and flexibility to meet these guidelines through different strategies depending on regional needs. The CMAs have worked with their partners in natural resource management to create two groundbreaking strategic plans, underpinned by solid evidence bases and with good plans for adaptation and improvement over time.
- **A strong strategic planning process is crucial** – The success of the upgraded plans is in large part due to the strong strategic planning processes developed and implemented by the CMAs. Undertaking a thorough and collaborative strategic planning process that draws on good analysis and evidence sets the foundation for effective and better targeted investment in the region. Upgrading their regions' plans has built improved strategic planning capacity within the two pilot CMAs and among their partners. Both CMAs adapted their planning processes as they learned what worked and refined their strategic goals. The CMAs also have plans in place for adaptively managing and improving the plans over time. For example, the Namoi plan has a strong adaptive management strategy, including identifying upcoming policy changes that may trigger a review of the catchment action plan (such as the Murray Darling Basin Plan).
- **Whole-of-government and community planning is achievable and worth pursuing** – Where previous plans focussed more on what the CMA alone could achieve, the upgraded plans trialled a whole-of-government and community approach to regional planning. This allowed planners to draw on the knowledge and values of all stakeholders, and helped build co-operative relationships between the CMA, agency and community stakeholders. Progress made towards whole-of-government and community planning was based on considerable effort and goodwill from all involved. As the remaining upgrades get underway, agency involvement needs to be more targeted and less resource intensive.
- **Resilience concepts add value to regional planning** – The upgraded plans have delivered a better understanding of how landscapes function through the pioneering use of systems thinking and resilience concepts. These analytical frameworks have provided a new lens through which to view catchments; one that embraces the idea of landscapes as

dynamic systems made up of interacting social and ecological components. The Central West plan effectively uses state and transition models to identify different states their landscape systems could be in, and the drivers and variables that control the systems. Both plans identify important thresholds which if crossed put a landscape system at risk of decline. The plans include targets aimed at managing their landscapes so that they continue to support the social, economic and environmental values identified by their communities and government in the face of future uncertainty and climate change. As the plans are implemented, the CMAs and their partners will continue to evaluate this approach, and build on the analysis already undertaken.

- **Linking biophysical and social elements of landscapes is difficult but important** – Overall, biophysical systems analysis was strong in both the Central West and Namoi plans. However, both CMAs found it more difficult to integrate social elements into their biophysical systems. Improving these analyses and linkages is a complex task and will require further attention as part of ongoing adaptive management of the plans.
- **A good information base supports informed decision making** – The upgraded plans are underpinned by comprehensive evidence-bases capturing the best available scientific, spatial and community knowledge for each region, and identify information gaps and assumptions that need further investigation. For example, Namoi’s resilience analysis was informed by expert and spatial information about their region. Both CMAs reported that the evidence collected and analysis undertaken has increased their confidence in the plans’ priorities and targets. Also, by being transparent about what we do and don’t know about the region, both plans help stakeholders make more informed decisions. Both CMAs have appropriate plans in place to work with their partners to address their current knowledge and analytical limitations.
- **Spatial tools are useful for analysing and communicating information** – Central West and Namoi used spatial tools for analysing information, identifying priority areas and communicating this information to other stakeholders. The spatial information in these plans should be useful in informing regional-scale land-use planning. Both CMAs have invested in developing substantial spatial capacity. The NRC does not expect that all CMAs will have similar spatial capacity in the short term. However, it is critical that regional planners are able to access quality spatial information and tools when upgrading their regions’ plans; for example, by collaborating with agencies or local governments.
- **Upgraded plans can align government plans and policies at a regional scale** – The pilot CMAs and agencies collaborated in aligning the catchment action plans with key government plans and policies. The Central West CMA adopted an innovative alignment framework to align its catchment action plan with a range of government plans and policies, particularly Water Sharing Plans and the Draft NSW Biodiversity Strategy.⁹ Agencies are currently working on improving the alignment of plans, policies and strategies at the state scale so it will be more efficient for CMAs to invest resources in aligning catchment action plan priorities.

The pilot process gave the two pilot CMAs the freedom to take different approaches to developing the plans. For instance, the Central West and Namoi CMAs took different approaches to resilience, and both achieved progress in applying social-ecological systems

⁹ Originally piloted by Hunter-Central Rivers CMA, the NSW Office of Water, the former Department of Environment, Climate Change and Water and the NRC, with funding from National Water Commission. Refer to: Hamstead, M. (2010), *Alignment of water planning and catchment planning*, Waterlines report, National Water Commission, Canberra.

analysis in regional planning. Different examples of good practice include Central West's use of state and transition models to analyse landscape systems, and Namoi's frameworks for how the information and resilience concepts in their strategic plan will be used to determine investment priorities.

It is also important to consider the role of these upgrades in supporting a paradigm shift in regional strategic planning, towards a collaborative, systems-based approach to managing natural resources. It is unrealistic to expect that these pilot plans have facilitated a clean shift; instead the shift will be achieved through a succession of plans over time, driven by the NSW regional model's focus on continual improvement and adaptation. These plans have made the first incremental steps towards achieving the priorities for improved catchment action planning. More progress will be made as the rest of the state's plans are upgraded in the next 18 months, and as the Central West and Namoi regions revise, improve and update their plans in the coming years.

4 Recommendations and next steps

In its *NSW 2021* plan, the NSW Government has committed to increasing the devolution of decision making, funding and control of catchment management by:

- facilitating community and government collaboration and input to develop upgrading catchment action plans across the state by March 2013
- building the capacity of CMAs and agencies to undertake the catchment action plan upgrades based on best available natural resource management strategic planning, and against the state-wide targets for natural resource management.

This chapter gives advice to the Ministers on how to help ensure high-quality upgraded plans are developed across the rest of the state. It also sets out how Government, CMAs and other stakeholders can support devolved decision making by effectively implementing the upgraded Central West and Namoi catchment action plans.

4.1 Facilitating collaborative planning and building strategic capacity at the regional scale

The NSW Government has committed to facilitating collaborative planning and building strategic capacity at the regional scale. Experience from the pilots has shown there are some important things Government can do to meet its *NSW 2021* objectives and ensure that there are high quality regional plans and planning processes across the state, including:

- **Facilitating whole-of-government collaboration and input in catchment action planning** – In the next 18 months agencies will be involved in a further 11 catchment action plan upgrades, as well as other significant planning processes such as Strategic Regional Land Use planning. Given the number of planning processes underway, agency involvement needs to become more targeted and better co-ordinated. The whole-of-government co-ordinator should help to streamline agency input into upgrading plans. Agencies should also continue their current work towards improving the coherence of state-scale plans, policies and frameworks to encourage better alignment at all scales.
- **Improving integrated social-ecological systems analysis** – To support resilient landscapes into the future, planners must move beyond focusing on biophysical processes and identify and integrate the linked social and biophysical factors that make up a landscape.
- **Developing regional scale spatial capacity** – The Central West and Namoi plans benefited from the CMAs' substantial spatial capacity and resources. We do not expect all CMAs to have invested in similar spatial capacity at this point in time. However, it is important that regional planners are able to access spatial information and tools when upgrading their region's catchment action plans, and have ongoing access to this information to inform investment decisions. This requires CMAs to have plans in place for building their spatial capacity, including by collaborating with others to develop common resources.
- **Working together to collect and share knowledge** – Natural resource managers at all scales are already investing time and resources in gathering information through their own monitoring, evaluation and reporting programs. It is important that these efforts are being directed towards the most important priorities, and that the resulting knowledge is shared and readily accessible.

- **Integrating catchment action planning with plans and policies at other scales –** Government needs to capitalise on the value of the CMAs’ regional knowledge, experience and strategic planning capacity. State-scale policy priorities will be more relevant and more effectively implemented if they take into account the CMAs’ regional expertise, knowledge and priorities. Agencies and CMAs should identify how the remaining catchment action plan upgrades can help inform and implement other government plans and policies, particularly in light of significant state and national planning processes currently being undertaken.

The recommendations in **Table 1** focus on what the Ministers can do to help support catchment action plan upgrades across the state, in line with the Government’s *NSW 2021* objectives.

Table 1: Summary of the NRC’s recommendations for supporting catchment action plan upgrades

Recommendations	
1. <i>Facilitating whole-of-government collaboration and input in catchment action planning</i>	
<p>The Ministers should seek Government support for facilitating whole-of-government and community input into catchment action plan upgrades.</p>	<p>Next steps should include:</p> <ul style="list-style-type: none"> a) continuing to support the whole-of-government co-ordinator position to streamline agency input into upgrading plans b) maintaining the Natural Resource Management Senior Officers Group as an effective forum for inter-agency collaboration at the state scale c) prioritising the current work in better aligning state-scale plans, policies and strategies for natural resource management, to assist in aligning catchment action plans with state-scale policy priorities.¹⁰
2. <i>Improving social and ecological systems analysis</i>	
<p>The Ministers should encourage Government to invest in integrated social and ecological systems analysis and incorporate socio-economic information into investment decision-making.</p>	<p>Next steps should include:</p> <ul style="list-style-type: none"> a) CMAs and their partners increasing the level of resources directed towards social systems analysis and monitoring b) CMAs and their partners working collaboratively to investigate potential approaches and methods to assist CMAs in better understanding the linked social-ecological systems operating in their catchments c) CMAs incorporating adaptive capacity assessments into their analysis of landscape function as part of the catchment action plan upgrades d) CMAs and their partners developing and implementing a plan to address the knowledge gap CMAs have around analysing social systems in the catchment and their interaction with biophysical systems.

¹⁰ Refer to Recommendation 2 on Page 7 of Natural Resources Commission (2010), *Progress towards healthy resilient landscapes: Implementing the Standard, targets and catchment action plans*, December – “That the NSW Government seek greater coherence among state-wide plans and policies...”

Recommendations

3. *Developing regional scale spatial capacity and knowledge*

The Ministers should encourage Government to strategically invest in spatial capacity and knowledge at appropriate scales to inform and improve regional-scale planning.

This may involve maximising existing capacity within state agencies or local governments.

Next steps should include:

- a) the Natural Resource Management Senior Officers Group considering and providing guidance on what kind of spatial analyses, and at which scales, are most useful to include in catchment actions plans so that they can best inform Strategic Regional Land Use Plans and Regional Strategies
- b) the Natural Resource Management Senior Officers Group considering arrangements that enable integration and sharing of monitoring, evaluation and reporting data and information online
- c) the Natural Resource Management Senior Officers Group working with CMAs to assess capacity for spatial analysis at the regional scale, and seeking to fill gaps or share resources where needed
- d) agencies and CMAs working together to develop a collaborative action plan for identifying, prioritising and addressing knowledge gaps.

4. *Integrating catchment action planning with plans, policies and investment at other scales*

The Ministers should encourage Government to consider how the development processes of different plans and policies can co-ordinate with the remaining catchment action plan upgrades.

Next steps should include:

- a) agencies and CMAs collaborating to identify how upgraded catchment action plans can be useful in developing and delivering their own plans and policies. For example, this may involve:
 - capitalising on opportunities for alignment and sharing of information and resources between catchment action plan upgrades and the NSW Government's Strategic Regional Land Use Plans
 - ensuring upgraded catchment action plans can be used for delivering the Australian Government's Carbon Farming initiative.

To further regional planning capacity, the NRC also expects that other CMAs will learn from the pioneering experience of their peers in the Central West and Namoi, and build on the progress made in the first upgraded plans as they undertake their own catchment action plan upgrades between now and March 2013. For example, CMAs and their partners should be looking at how their own upgraded plans can:

- explore the benefits of cross-boundary collaboration to examine scales above the catchment level
- make progress towards better integration of social and biophysical systems analyses
- consider alternative futures and management strategies for their region
- help adapt to potential impacts of climate change and variability
- make innovative use of spatial products for both analysis and representation.

Agency staff involved in the pilots should also be identifying what planning and analytical approaches have worked well, and how to help improve agency collaboration and co-ordination of resources during the remaining catchment action plan upgrades.

4.2 Implementing the upgraded catchment action plans

Following the Ministers' approval of the upgraded plans the CMAs, agencies and other stakeholders will start working together to implement their regions' plan.

The NRC has received confirmation that the following agencies support the strategic intent of the Central West and Namoi plans, and in principle the roles and responsibilities outlined in the plans: the Department of Primary Industries; the Office of Environment and Heritage; Aboriginal Affairs NSW; and the State Water Corporation. The Department of Planning and Infrastructure has also confirmed support for the upgraded CAPs in terms of seeking a collaborative approach to improving natural resource outcomes, and is committed to working with the CMAs when developing Strategic Regional Land Use Plans.

The following actions will help the CMAs, Government and other stakeholders get the most value out of the upgraded plans:

- **Co-ordinating all stakeholders' actions and investments** - The targets and priorities in the upgraded plans, and partnerships developed through the planning process, should provide a basis for co-ordinating CMA, government and community action to generate greater returns on investment and better on-ground outcomes.
- **Contributing to state and national government initiatives** - The CMAs and their regions' upgraded plans can help inform and implement NSW and Australian government initiatives by providing knowledge of regional landscapes and links to regional communities. In turn, catchment action plans should also consider new policies and plans as part of their adaptive management processes. Currently, there are opportunities to contribute to significant changes in program and policy settings, including the NSW Government's Strategic Regional Land Use Plans¹¹, the Murray Darling Basin Plan¹², the Australian Government's National Wildlife Corridors Plan¹³, and climate change initiatives under the Clean Energy Future plan,¹⁴ such as the Carbon Farming Initiative¹⁵ and Biodiversity Fund¹⁶.
- **Supporting ongoing adaptation and improvement** - these upgrades should be just another step in the CMAs' ongoing process of implementing, reviewing and improving their strategic planning over time. CMAs, agencies and regional communities should work collaboratively over time to adaptively manage and further improve their regions' strategic planning. The plans should be given the flexibility to be updated in response to new information and significant policy or other external changes.

¹¹ <http://planning.nsw.gov.au/StrategicPlanning/StrategicRegionalLandUse/tabid/495/language/en-US/Default.aspx>

¹² Murray Darling Basin Authority (2011), website: www.mdba.gov.au/basin_plan

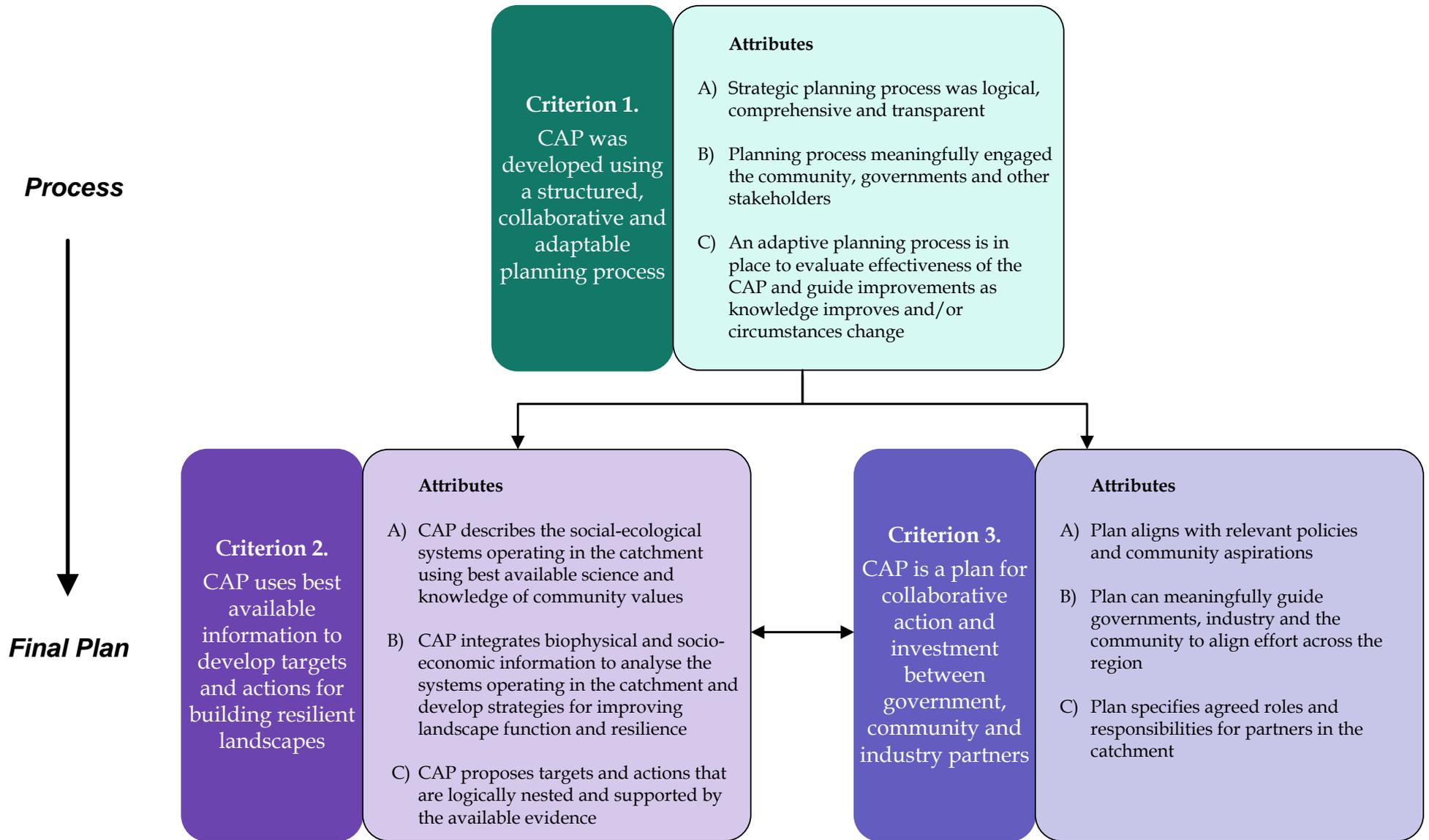
¹³ <http://www.environment.gov.au/biodiversity/wildlife-corridors/index.html>

¹⁴ www.cleanenergyfuture.gov.au

¹⁵ <http://www.climatechange.gov.au/cfi>

¹⁶ <http://www.cleanenergyfuture.gov.au/biodiversity-fund/>

Attachment 1 - Criteria and attributes for assessing upgraded CAPs



Attachment 2 – NRC process for assessing upgraded CAPs

