



## CASE STUDY

# WESTERN CATCHMENT MANAGEMENT AUTHORITY

## Application of draft state-wide standards and targets

November 2004

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## **List of acronyms**

CAP	Catchment Action Plan
CMA	Catchment Management Authority
NRC	Natural Resources Commission
NSW	New South Wales

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## 1 Introduction

This case study has been developed to accompany the public release of draft state-wide standards and targets. It demonstrates that:

- the catchment scale natural resource management processes used in the development of the Western Catchment Blueprint (the Blueprint) relate to the NRM process areas for which the NRC is developing state-wide standards
- existing catchment-scale targets, developed by the former Western Catchment Management Board, may contribute to the draft state-wide targets.

Similar case studies have been developed for the Murrumbidgee and Southern Rivers CMAs.

## 2 Application of state-wide standards

The processes used in the development of the Western Catchment Blueprint (the Blueprint) provide examples of the processes for which state-wide standards are proposed. These examples include both formal, documented procedures and observations of less formal processes that were adopted in the development of the Blueprint and are categorised according to the five proposed matters for state-wide standards in Table 1.

The NRC intends to develop state-wide standards that correspond with a number of the processes used in natural resource management in the Western catchment. State-wide standards will build on the lessons learned in the Blueprint development process. Therefore the introduction of state-wide standards will require some changes to existing processes where state-wide standards introduce more rigour in natural resource management planning processes or require consistency across CMAs.

The NRC believes there is potential for state-wide standards to add value to natural resource planning processes in New South Wales, based on the experience in Blueprint development in the Western catchment. For example:

- A state-wide standard for 'Investment planning and prioritisation' may provide structure to the process of prioritising catchment-scale management actions in the development of all CAPs.
- There is potential to target the use of socio-economic assessment and derive greater benefits from this effort through guidance provided in a state-wide standard.
- Attempts by CMAs to coordinate natural resource management across catchment and state boundaries could be strengthened and the outcomes of these processes improved through the additional support of a state-wide standard.
- A state-wide standard for 'Monitoring and evaluation' could provide protocols for ensuring that there is consistency in the level of support provided by state government agencies and in data sharing arrangements with CMAs.

**Table 1: Proposed matters for state-wide standards and examples of existing natural resource management processes in the Western catchment.**

Proposed matters for state-wide standards	Natural resource management processes used in the Western catchment*
<p><b>Investment planning &amp; prioritisation</b></p> <p><i>To ensure transparent and increasingly informed investment decisions which contribute to the environmental, social and economic health of New South Wales.</i></p>	<ul style="list-style-type: none"> <li>▪ Management actions prioritised according to a defined list of criteria.</li> <li>▪ A rapid, consensus, no regrets approach used to identify and prioritise management targets.</li> <li>▪ Consideration of the logical sequence of implementation in prioritising investment in management actions.</li> <li>▪ Physical, biological and managerial obstacles (risks) and requirements for achieving objectives were identified.</li> <li>▪ Input from technical specialists, literature reviews and an issues audit for the catchment coordinated by task teams in the development of targets for natural resource management.</li> <li>▪ Principles of adaptive management applied to ensure monitoring and evaluation informs future decisions.</li> </ul>
<p><b>Coordination</b></p> <p><i>To reinforce partnerships and guide CMAs in coordinating activities to achieve outcomes at the state scale.</i></p>	<ul style="list-style-type: none"> <li>▪ Input sought from other natural resource management planning processes within the catchment and in adjacent catchment planning processes (including the establishment of a cross-border forum to coordinate inter-state issues).</li> <li>▪ Links between management targets were identified.</li> </ul>
<p><b>Socio-economic assessment</b></p> <p><i>To ensure adequate consideration of socio-economics in CMA decision making.</i></p>	<ul style="list-style-type: none"> <li>▪ A socio-economic assessment framework was used to identify potential impacts (costs and benefits) and inform decisions about trade-offs.</li> </ul>
<p><b>Information management</b></p> <p><i>To encourage the development and maintenance of coherent, accessible and relevant state scale information.</i></p>	<ul style="list-style-type: none"> <li>▪ Data exchange with agencies was achieved through cooperation rather than a specific protocol.</li> </ul>
<p><b>Monitoring and evaluation</b></p> <p><i>To ensure chosen indicators and data collection protocols permit state scale evaluation &amp; development of datasets.</i></p>	<ul style="list-style-type: none"> <li>▪ Future reporting will be streamlined to meet the requirements of different investment sources.</li> <li>▪ A holistic target for water management was developed and was based on an integrated indicator, the River Health Index, which was based on Sustainable Rivers Audit parameters.</li> </ul>

\*These include processes used in the development of the Western Catchment Blueprint and processes to be used in the development of the Catchment Action Plan.

## Issues for developing state-wide standards

In discussion with the Western CMA, the NRC has identified that the following issues need to be addressed in the further development of the state-wide standards:

- State-wide standards need to be carefully assessed to ensure they build on and add value to previously developed processes.
- Reporting requirements associated with demonstrating compliance with state-wide standards will need to be streamlined and clearly defined.
- A clear distinction between any mandatory requirements, guidance and additional reference material will need to be made.
- Standards need to allow for regional priorities to be addressed and for innovation in natural resource management at the regional level.
- A standard for 'Monitoring and evaluation' should reflect the respective responsibilities of CMAs and state government agencies.

## 3 Application of draft state-wide targets

Catchment-scale targets defined in CAPs will ultimately need to be assessed for their contribution to state-wide targets. This will be achieved through an audit framework and assessment method to be developed by the NRC in consultation with CMAs and other stakeholders.

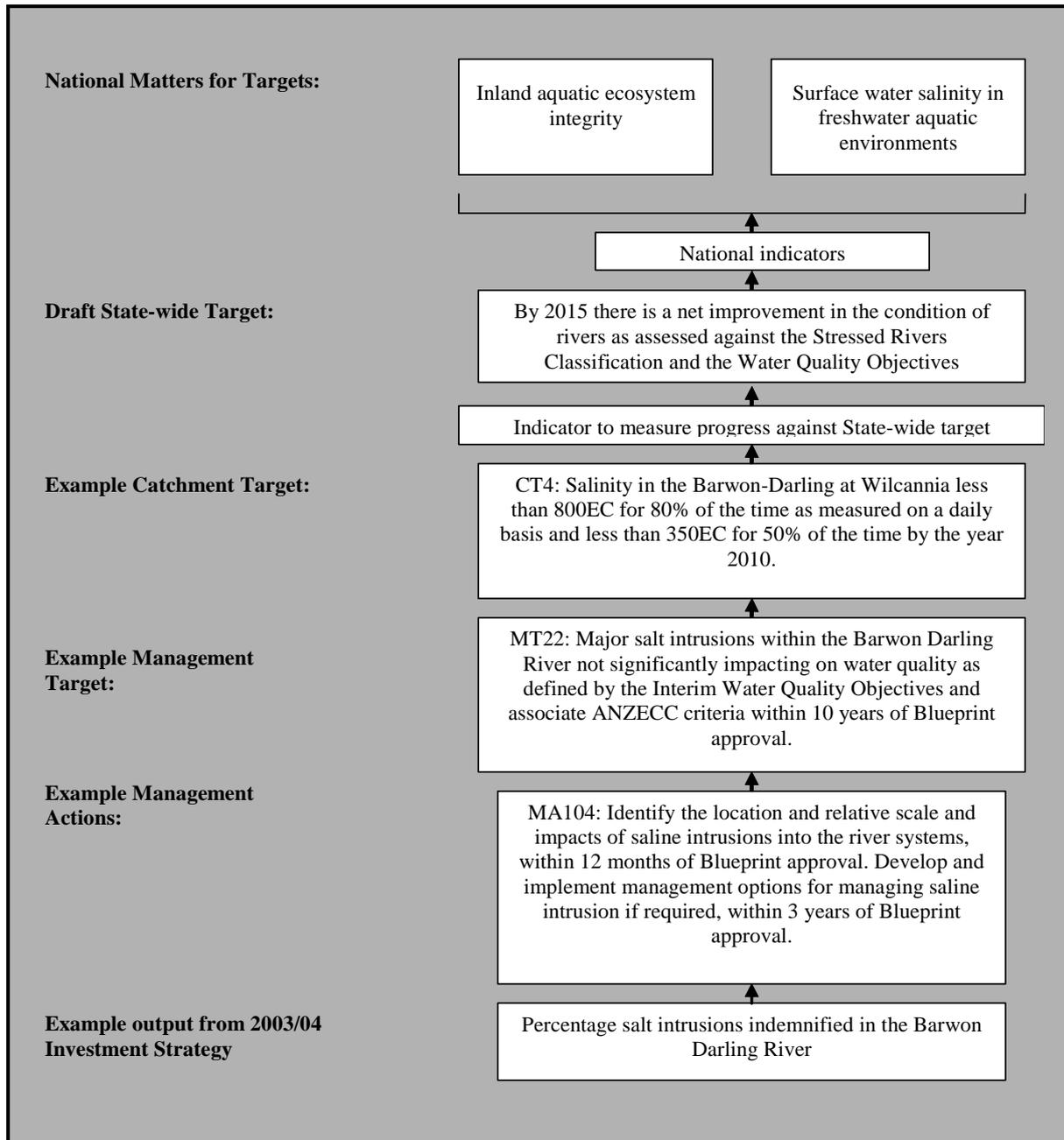
During the CAP approval process, the NRC will assess the extent to which catchment-scale targets are expected to promote the state-wide targets relevant to each region. Subsequently, the NRC will use defined indicators to assess progress in promoting state-wide targets. In both assessment processes, the contribution of catchment-scale targets across multiple state-wide targets will be considered.<sup>1</sup>

Figure 1 shows the broad relationship between natural resource management project outputs, existing catchment-scale targets, draft state-wide targets and the national matters for targets. This example illustrates that action at the catchment scale would contribute to the draft state-wide targets and that there is alignment between the draft state-wide targets and the priorities for natural resource management at a national level.

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<sup>1</sup> As the Western CMA intends to build on the Blueprint targets in the development of their CAP, Blueprint catchment and management targets were used as existing catchment-scale targets for comparison with the draft state-wide targets.

**Figure 1: Links between on-ground actions and targets at different scales**



The existing catchment-scale targets contributing to each of the draft state-wide targets are identified in Table 2. The existing catchment-scale targets generally align with the draft state-wide targets. Exceptions arise where catchment-scale targets address regionally-specific issues or draft state-wide targets address natural resource management issues that are not relevant to the Western catchment.

It should not be expected that all CMAs will promote individual state-wide targets to the same degree due to the regional variation in natural resource management issues. For example, there was relatively low alignment of Blueprint targets with the draft state-wide target to increase the extent of native vegetation. A higher degree of alignment with this state-wide target may arise as the Blueprint targets are revised to reflect amendments to native vegetation legislation since the drafting of the Blueprint. Under the original Blueprint targets there was potential to reduce the currently high level of native vegetation coverage in the Western catchment. CAP targets however are likely to aim to maintain the extent of native vegetation cover, consistent with the provisions of the *Native Vegetation Act 2003*.

There is a need to consider how directly catchment-scale targets contribute to state-wide targets. Catchment-scale targets would need to make a direct contribution to specific state-wide targets such as the draft state-wide target for sustainable extraction from aquifers. The Blueprint target for stabilising artesian pressure (MT16), which is linked to the Great Artesian Basin Sustainability Initiative, is an example of a direct contribution to this draft state-wide target. Many catchment-scale targets could however contribute directly and indirectly to a state-wide target with broader scope, such as the draft state-wide target for improving river condition.

The instructions for drafting Blueprints precluded specific community targets. Therefore the contribution to the draft state-wide community targets will be through the overall management actions supporting the plan and specific management actions supporting individual catchment-scale targets. In most cases there are several management actions required to achieve each catchment or management target, some of which are likely to contribute to the draft state-wide targets for community. For example, the overall management action for community awareness, education and ongoing consultation would contribute to the draft state-wide target for other strategies supporting community commitment to achieving better natural resource management outcomes.

### **Issues for developing state-wide targets**

In discussion with the Western CMA, the NRC has identified that the following issues to be addressed in the further development of the draft state-wide targets:

- Consistency with national matters for targets should be maintained.
- The development of threshold levels for the indicators for measuring progress against state-wide targets should be considered at the regional level.
- A binary distinction between resources in good or bad condition should be avoided to recognise the wider range of condition that exists for all resources.
- It should be decided whether trade-offs between the community's social and economic values and environmental values should be incorporated in the development of targets for the condition of natural resources or in their application.
- Indicators to measure progress against targets could be defined in a state-wide standard.

**Table 2: Alignment of catchment and management targets with draft state-wide targets**

State-wide Resource Condition Targets	Relevant Catchment and Management Targets (Refer to Appendix 1)
By 2015 there is a net improvement in the condition of rivers and wetlands as assessed against the Stressed Rivers Classification and the Water Quality and River Flow Objectives for NSW.	CT1, CT2, CT3a, CT3b, CT4, CT5, MT1, MT2, MT7, MT8, MT9, MT10, MT11, MT12, MT13, MT14, MT15, MT21, MT22, MT23
By 2015 extractions from aquifers are within identified sustainable yields.	CT2, MT16
By 2015 there is a net improvement in the condition of estuaries as assessed against the National Land and Water Resources Audit classification of estuaries.	Not applicable to the Western catchment.
By 2015 the condition of all coastal lakes is maintained and those classified as 'Targeted Repair', according to the former Healthy Rivers Commission's classification, are improved.	Not applicable to the Western catchment.
By 2015 there is a net improvement in the condition of marine waters as assessed against the Marine Water Quality Objectives for NSW Coastal Waters.	Not applicable to the Western catchment.
By 2015 there is reduced risk of species, populations and ecological communities becoming threatened.	CT3a, CT3b, MT1, MT3a, MT3b, MT4, MT5, MT6, MT7, MT8, MT9, MT13, MT15, MT17, MT19, MT20
By 2015 there is a net reduction in the abundance of and area affected by invasive species and no new species have become established.	CT3a, CT3b, MT1, MT3a, MT3b, MT4, MT5, MT6, MT8, MT9, MT17, MT19
By 2015 there is a net increase in extent and diversity of native vegetation cover.	CT1, MT1, MT2, MT4, MT8, MT11, MT17, MT19
By 2015 there is a net increase in connectivity across terrestrial and aquatic ecosystems.	MT1, MT2, MT8, MT9, MT12, MT13, MT17, MT19
By 2015 there is an increase in the extent and diversity of native vegetation cover of riparian zones.	CT1, MT1, MT8, MT19
By 2015 there is no net loss of native seagrass, saltmarsh and mangroves.	Not applicable to the Western catchment.
By 2015 there is a net reduction in productive capacity lost due to salinity, acidity, erosion, acid sulphate soils, invasive species.	CT1, MT1, MT2, MT3a, MT3b, MT4, MT5, MT18, MT23
By 2015 all critical recharge zones are vegetated with deep-rooted perennial vegetation.	MT23
By 2010 information systems and training programs are in place to meet CMA's identified needs to deliver better natural resource management outcomes.	This target is not proposed to be a responsibility for CMAs.
By 2010 communication networks and other strategies are established that lead to strong community commitment to better natural resource management outcomes.	Several 'overall management actions' and management actions supporting individual CTs and MTs contribute to this target.

**Key:** CT - catchment target; MT - management target.

## Appendix 1: Catchment and management targets from the Western Catchment Blueprint

### CATCHMENT TARGETS (CT)

CT1	Quality and quantity of vegetation managed to maintain and/or improve designated cover capable of preventing soil erosion (i.e. designated cover greater than or equal to 40%)
CT2	The Surface Water System Health Index Rating and the Groundwater System Health Index Rating improved at 60% of relevant monitoring sites and maintained at all other monitoring sites by 2010.
CT3a	Ecological communities of high conservation value are adequately protected.
CT3b	Of the area of each other ecological community: <ul style="list-style-type: none"> <li>▪ 12% is managed for conservation within 10 years of Blueprint approval and 25% within 25 years of Blueprint approval;</li> <li>▪ No more than 35% in total is cleared for change of land use.</li> </ul>
CT4	Salinity in the Barwon-Darling at Wilcannia less than 800EC for 80% of the time as measured on a daily basis and less than 350EC for 50% of the time by year 2010.
CT5	Salt load in the Barwon-Darling at Wilcannia less than 530,000 tonnes per year for 80% of the time and less than 160,000 tonnes per year for 50% of the time by year 2010.

### MANAGEMENT TARGETS (MT)

MT1	Sustainable grazing management practice carried out by 100% of landholders within 10 years of Blueprint approval.
MT2	Sustainable farming management practice carried out by 100% of landholders within 10 years of Blueprint approval.
MT3a	2.3 million hectares under ongoing management to prevent scrub encroachment within 10 years of Blueprint approval.
MT3b	Decrease area of scrub dominated landscapes by 200,000 ha within 10 years of Blueprint approval.
MT4	To regenerate and rehabilitate 25,000 ha of land that has suffered soil erosion and/or pasture loss within 10 years of Blueprint approval.
MT5	No increase in the number of species or area of noxious or exotic weed infestation above current levels (2002).
MT6	No increase in impacts of pest animals above current levels (2002).
MT7	60% of existing impeding structures modified to ensure flow of floods reach important wetlands and floodplain areas by 2010.
MT8	Voluntary management of 40% of priority areas (as identified by the Riparian Zone Health Survey) on Western Catchment rivers, leading to incremental improvement in native riparian vegetation, within 10 years of Blueprint approval.

## MANAGEMENT TARGETS (MT)

MT9	Priority areas for targeted rehabilitation of fish and threatened aquatic species habitats identified and mapped, within 18 months of Blueprint approval, and action plans developed and implemented in 20% of priority areas within 10 years of Blueprint approval.
MT10	100% compliance with regulations relating to point and diffuse source pollution within 2 years of Blueprint approval to achieve water quality objectives consistent with relevant ANZECC criteria.
MT11	Adoption by agriculture and industry of best management practice relating to pollution of waterways, within 4 years of Blueprint approval to achieve objectives consistent with relevant ANZECC water quality guidelines.
MT12	100% of weirs are managed to minimise stratification for the 6 critical months from October to April by 2010.
MT13	Increase the mean length of uninterrupted river available to native fish by 25%, and increase the mean percentage of time fish can move between sections divided by barriers by 25% within 10 years of Blueprint approval.
MT14	Implement water management strategies to ensure compliance with the Murray-Darling Basin Cap on Diversions in the Barwon-Darling River and all intersecting streams by July 2003.
MT15	NSW Interim River Flow Objectives are addressed in all Water Sharing Plans developed by July 2003.
MT16	Artesian pressure stabilised in key regions as defined by NSW Great Artesian Basin Advisory Committee by 2006.
MT17	Ecological communities of high conservation value are identified within 3 years of Blueprint approval and adequately protected throughout the Catchment by negotiation with landholders, within 8 years of Blueprint approval.
MT18	The ideal distribution of land to be managed for conservation and cleared for change of land use, is determined for the Shires of Cobar, Bourke, Brewarrina and Walgett (western portion only) within 12 months of Blueprint approval and the rest of the Catchment within 2 years of Blueprint approval.
MT19	An ongoing program is established that allows landholders to incorporate land "managed for conservation" as an alternative land use and part of a viable enterprise, within 2 years of Blueprint approval.
MT20	In any ecological community, areas cleared for changed land use are proportional to new areas managed for conservation in successive two year planning periods.
MT21	Dilution flows achieving EC levels for the protection of drinking water quality 80% of the time as defined in the Barwon Darling River Management Committee Water Sharing Plan.
MT22	Major salt intrusions within the Barwon Darling River not significantly impacting on water quality as defined by the Interim Water Quality Objectives and associated ANZECC criteria within 10 years of Blueprint approval.
MT23	By 2010, no land uses in the Western Catchment will lead to increased salt mobilisation beyond current levels.