



BACKGROUND

The Goulburn Broken Regional Catchment Strategy 2013 - 2019 (RCS) is guiding efforts to sustain and restore the region's natural environment and the communities that rely on healthy waterways, landscapes and biodiversity to remain prosperous and vibrant.

The current RCS builds on more than 25 years of achievements: the Catchment's people have worked tirelessly together in areas such as soil health, salinity, habitat protection and improvement, pest plant and animal management and river rehabilitation.

A mid-term review provides a "check" on progress towards the RCS's long-term targets, strategic objectives, priorities and management measures (see Figure 1). It also identifies challenges and opportunities as we approach the renewal phase for the next RCS in 2019.

The review used data collected through existing reporting processes (eg. the Annual Report), and targeted sessions including stakeholder workshops, an online community survey and local case studies.

Progress against the RCS's strategic priorities and management measures was assessed using the following criteria:

- Significant progress towards the management measures has been made since 2013.
- Progress towards the management measures is on track.
- An increase in effort is required to achieve the management measures by 2019.

Key achievements aligned to management measures as well as Initiatives that will be or should be implemented to help meet those management measures where more effort is needed, are also outlined.

Overall, the review found:

- implementation of the RCS is progressing well, with few strategic priorities needing increased effort over the next three years; and
- the RCS is still relevant and current three years on, with social, political and environmental changes being addressed through sub-strategies and local plans.

The review also identified major political, policy, environmental, social, and economic changes over the life of the RCS that will be considered during the RCS renewal.

Some of the key considerations include:

- becoming better informed about key environmental and socio-economic thresholds and how they relate to long-term reporting;
- greater Traditional Owner involvement;
- the best format for an adaptive RCS;
- greater involvement of industry groups; and
- initiatives that consider the economic implementation of NRM activities across the catchment.

VISION

Healthy, resilient and increasingly productive landscapes supporting vibrant communities

LEVEL 1

20 TO 30-YEAR OBJECTIVES

for biodiversity, land, water and people assets (from Goulburn Broken CMA sub-strategies)

LEVEL 2

6-YEAR STRATEGIC OBJECTIVES

Embed resilience

so that all aspects of the Goulburn Broken Catchment RCS factor in:

- sub-catchment and local differences
- uncertain futures and knowledge
- appropriate governance support
- adaptive management

ADAPT TO DRIVERS OF CHANGE

Land-use changes

so that opportunities for improving the environment are captured as:

- land ownership changes
- enterprises change
- land management changes

Water policy reform

so that:

- water savings are generated for the benefit of farmers, the community and environment
- aquatic and riparian environmental features receive the right volumes of water at the right times

Climate variability

so that:

- risks from climate variability and responses to it are managed
- opportunities from the global shift towards lower use of carbon-based energy are captured

Increased farm production

so that:

- the natural resource base upon which future agricultural production depends is sustained and enhanced

Strengthen partnerships

so that:

- community and industry groups, agencies and individuals have the capacity to contribute to the Catchment vision

LEVEL 3

6-YEAR STRATEGIC PRIORITIES*

Update and develop strategies

Capture opportunities from land development

Influence regional water policy

Adapt to climate variability risks

Manage risks to agricultural production

Reinforce relationships between agency and industry

Plan at social-ecological system scale

Plan for and manage floods

Deliver water to waterways and wetlands

Respond to and recover from climatic events

Establish sustainable agricultural practices

Manage public land collaboratively

Provide adaptive management and leadership

Use water efficiently on farms

Capture opportunities from a low carbon future

Increase biodiversity in agricultural land-use

Adopt flexible engagement approaches

LEVEL 4

* Strategic priorities describe the focus for bundles of management measures

Figure 1: Goulburn Broken RCS Objectives Hierarchy

DELIVERY OF 20-30 YEAR OBJECTIVES FOR BIODIVERSITY, LAND, WATER AND PEOPLE

Delivery of the 20-30 year objective (level 2 in the RCS Objectives Hierarchy) is assessed annually. The table below summarises the progress towards these long-term objectives at the mid-way point of the RCS's implementation.

For further details please view the Goulburn Broken CMA's Annual Report, which can be found on our website www.gbcma.vic.gov.au

Investment area	Long-term strategy implementation progress ⁱ	
	Strategy life ⁱⁱ	Progress
1 SUSTAINABLE IRRIGATION		
1a Shepparton Irrigation Region salinity	1990-2020	Below target
2 RIVER AND WETLAND HEALTH AND FLOODPLAIN MANAGEMENT		
2a Environmental flows	2014-2022	On target
2b Riparian and instream habitat and channel form	2014-2022	On target
2c Water quality (nutrients) in rivers and streams	1996-2016	Exceeding target
2d Floodplain management	2002-2016	Exceeding target
3 LAND AND BIODIVERSITY		
3a Biodiversity	2000-2030 2010-2015	On target
3b Land health including dryland salinity	1990-2050	Below target
3c Invasive plants and animals	2010-2015	Below target

- i. Strategy implementation progress considers evidence of outputs completed against targets, including onground works and tasks to improve management systems. Catchment condition ratings consider evidence of environmental or business condition, social and economic health and management systems. Catchment condition encompasses more than just biophysical condition. See the Goulburn Broken CMA Annual Report for details concern method for development
- ii. Strategies vary in formality and comprehensiveness. Refer to the Goulburn Broken CMA's WeConnect site for a list of Strategies. Strategy life includes time taken for capacity building tasks to be completed in medium term (usually three to five years) and for 'The Environment' investment areas, time taken for changes to be achieved over the long-term (usually ten to fifty years).

Ratings legend for above table

Annual performance and long-term strategy implementation progress	Well below target (<50%)	Below target (50-79%)	On target (80-109%)	Exceeded/ exceeding target (>109%)

DELIVERY OF SIX YEAR STRATEGIC OBJECTIVES

The review assessed progress toward the six year strategic objectives and strategic priorities (level 3 of the RCS Objectives Hierarchy). The following outlines some of the highlights as well as areas that will require, and are already receiving, additional effort.

EMBEDDING RESILIENCE

What does this mean? This means that the Goulburn Broken CMA and its partners factor in sub-catchment and local differences, uncertain futures and knowledge, appropriate governance support, and adaptive management.

Highlights

The development of Local Social Ecological System (SES) Plans to support implementation of the RCS and other strategies. These plans and strategies can be found on the Goulburn Broken CMA's Weconnect webpage - <http://weconnect.gbcma.vic.gov.au/>

The development of the Shepparton Irrigation Region (SIR) Land and Water Management applied resilience principles and is focusing on understanding thresholds of critical attributes for water, land, biodiversity and productivity in the SIR.

The Goulburn Broken Partnership and Senior Combined Partners Forum continues to provide leadership and build capacity to respond to drivers of change to water policy, land use, climate and farm productivity.

On-going challenge:

Addressing resilience knowledge gaps to make informed decisions based on key thresholds and tipping points.

STRENGTHENING PARTNERSHIP

What does this mean? This means community and industry groups, agencies and individuals have the capacity to contribute to the Catchment vision.

Highlights

The development of the Yorta Yorta Nation and Taungurung Clan Country Plans to promote the role of Indigenous people in managing country and establishing the Wayne Tennant Cadetship for indigenous students to undertake NRM studies.

Industry linkages continue to be developed through programs such as the Farm Water Consortium and the Beyond SoilCare project and aim to manage risk to agricultural production and establish sustainable agricultural practices.

Goulburn Broken Catchment NRM facilitators have undertaken training in social media, blogs and websites to reach more of the community to increase their knowledge and engagement in catchment management.

On-going challenge

Understanding social capital and community connectivity is essential in delivering on the Goulburn Broken RCS vision.

TO ADAPT TO LAND USE CHANGE

What does this mean? This means that opportunities for improving the environment are captured as landownership, enterprises and land management change.

Highlights

The Goulburn Broken Greenhouse Alliance has undertaken a project to better understand changes in commodities such as grain crops, forestry, fruit, pasture and vegetables under a range of climate scenarios.

Flood studies and implementation plans undertaken by Goulburn Broken CMA and other key partners to help prevent social and economic loss associated with inappropriate development.

Beyond SoilCare has supported more than 120 events over the past three years that promote a better understanding of soils and how this can improve productivity and the environment.

On-going challenge

Planning for land-use change, which minimises loss of biodiversity across the catchment, and the delivery of farm planning across the catchment that integrates ecological and agricultural productive benefits.

ADAPT TO WATER POLICY REFORM

What does this mean? This means water savings are generated for the benefit of farmers, the community and environment, and waterways and wetlands receive the right volumes of water at the right times.

Highlights:

Strategic Connection Project is creating a modernised irrigation system, which is resulting in more efficient water delivery to farms, and providing water savings that can be directed to improving environmental flows.

Priority Environmental Water flow targets, developed with input from community and key stakeholders through the Environmental Water Advisory Groups, have been met annually for the key rivers and wetlands.

Implementation of the Farm Water Program has delivered more than 500 projects that have improved irrigation efficiency over more than 55,000ha and generated more than 60 gigalitres of water savings.

On-going challenge:

Managing and responding to the challenges and opportunities associated with the reduced availability of water.

ADAPT TO CLIMATE VARIABILITY

What does this mean? This means risks from climate variability and responses to it are managed and opportunities from the global shift towards lower use of carbon-based energy are captured.

Highlights

The Climate Change Adaptation Plan for NRM in the Goulburn Broken Catchment has been developed identifying landscapes most vulnerable to climate change and priority areas for adaptation and mitigation actions.

Establishment of the Strathbogie Community Bushfire Planning Group who with DELWP are implementing the "Safer Together" approach to fuel management on public land.

Drought Recovery Program implemented across the Goulburn Broken Catchment.

On-going challenges

Changing state and federal policies around climate change, ensuring sequestration activities do not threaten natural systems and that multiple benefits can be achieved through sequestration.

ADAPT TO INCREASED FARM PRODUCTION

What does this mean? This means the natural resources that agricultural production depends on are sustained and enhanced.

Highlights

Conservation Networks and Landcare Groups in the Goulburn Broken run hundreds of events each year highlighting landscape values, increasing awareness around habitat requirements and how this can help and improve farm productivity.

Partnership projects such as woodlands and wetland protection, threatened species and various Conservation Management Network initiatives that are being delivered on private and public land across the catchment.

Continued support of the Dookie Seedbank and seed production areas ensures seed supply for future landscape scale revegetation.

On-going challenges

Articulating and promoting the link between natural resource health and agricultural production and implementation of long-term, on-ground initiatives with changing government funding and policies.

CASE STUDIES



BEYOND SOILCARE

In 2015-16, 600 people were directly involved in the Shepparton Irrigation Region Beyond SoilCare project, funded by the Australian Government National Landcare Programme.

These landholders attended a range of events covering topics such as composting, nutrient and groundwater salinity risk management, holistic farming and cropping, co-operatives and rapid assessment of soil health.

Over 70 activities were delivered by DEDJTR and Goulburn Broken CMA staff and through Goulburn Murray Landcare Network and Goulburn Valley Environment Group's GV21 projects. Other organisations participating in activities including Dairy Australia, Kilter and Madowla Park.

Demonstration trials continue to be an important part of SoilCare delivery with four new demonstration trials initiated in 2016. These projects will investigate maize yield variability, compost banding, the effect of compaction and amelioration in irrigated soils and management of climate change impacts on perennial horticulture.

The most recent Beyond SoilCare Health Impact Survey surveyed 90 past event participants, with 74 per cent reporting they had changed practices because of the project.



SPAWNING SUCCESS OF GOLDEN PERCH

Golden Perch naturally occur in lowland rivers in the Murray-Darling Basin, primarily in warm, flowing rivers. Although widespread, they have declined in some areas, due largely to weirs that have turned flowing rivers into static pools, and barriers which block their movement.

Recent monitoring of environmental flow events in New South Wales and Victoria has shown there is a close link between free-flowing water over large spatial scale, and strong recruitment and survival of young fish.

Many agencies work together to develop and implement environmental watering programs in Victoria. These include DELWP, the Victorian Environmental Water Holder (VEWH), CMAs, land managers, water authorities, the Commonwealth Environmental Water Office (CEWO) and the Murray-Darling Basin Authority (MDBA).



GECKO CLAN FIRE RECOVERY PROGRAM

The bushfires late in 2015 significantly impacted on communities and large areas of the landscape. Affected communities included Creighton Creek, Gooram, Longwood East, Bungeet, Stewarton, Lake Rowan, Warby Ranges, Goomalibee, Tatong, Molyullah and Swanpool. The Gecko CLaN chairperson Doug James, was burnt out in the Bungeet fire, which was a catalyst for the decision that Landcare needed to be there for the community. The fires impacted on 170 properties and the four main fires burnt 8,870 hectares.

In partnership with agencies, Gecko CLaN organised community information sessions. Over 210 people attended the information sessions. Following these sessions Gecko CLaN took on the role of coordinating fodder donations, organising fencing days with Waratah, feed budgeting sessions, setting up silt trap sites and organising skips for fencing waste.

GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY

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WHERE TO NEXT?

Change continues to drive implementation of this and the next RCS.

As a result of changes to State and Federal policy and strategy there will be an increased focus on:

- sustainable agriculture
- waterway and floodplain management
- climate change
- biodiversity
- regional infrastructure.

At the local government level, changes in land-use, planning and environmental controls and the need to plan for climate change will have a significant impact on regional catchment planning and implementation.

Economic, social and environmental changes identified during the review that need to be considered for the next stage of regional catchment planning include:

- changes to the horticulture and dairy industry in the agricultural floodplains as a result of reduced water availability; and

- changes in land use, particularly around property size (ie. more lifestyle properties) and growth of the equine, intensive animal farming and power generation industries.

Improved Traditional Owner involvement and recognition has, and will continue to, impact on implementation of the RCS.

In looking forward to the RCS renewal in 2019, a number of opportunities and challenges were identified, including:

- The need to become better informed about key thresholds within the catchment and how to monitor them and use them in NRM planning, including discussions around transformation and implementation of an adaptive management framework.
- Significant progress has been made in Traditional Owner input into NRM Planning in the Goulburn Broken catchment, however further effort will be required.

- Increased involvement of industry in regional NRM planning and implementation to contribute to the RCS catchment vision of “Healthy, resilient and increasingly productive landscapes supporting vibrant communities”.

- The need for a Pest Plant and Animal Sub-strategy to influence policy and funding for control programs for existing and emerging invasive species such as deer, Indian Myna and feral cats.
- Creating a better understanding of, and improve communication about, the links between positive natural resource outcomes and productivity.
- Continuing to build capacity and stability in community NRM groups to deliver RCS strategic objectives.

For further details visit the full review at: www.gbcma.vic.gov.au