

GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY

ANNUAL REPORT 2007 – 08

SUMMARY



**GOULBURN
BROKEN**
CATCHMENT
MANAGEMENT
AUTHORITY

2007-08 highlights across the Catchment

Drought response and environmental water

- Drought Employment Program directly employed up to 80 drought affected people. \$1.4 million from \$2.9 million raised through sale of seven gigalitres of environmental water used to extend last year's Program and this employed 30 people to protect 700 hectares of riparian land from overgrazing
- 1.1 gigalitres environmental water allocated to Reedy Swamp, Kinnairds Swamp, Moodies Swamp and Black Swamp
- 1.9 gigalitres from Goulburn water quality allowance used to manage Broken Creek water quality
- Announcement of \$1 billion from State Government to Northern Victoria Irrigation Renewal Project will result in 75 gigalitres for the environment across the Goulburn Murray Irrigation District (includes the Goulburn Broken and North Central Catchment Management Authority areas).

Works and incentives

- 715 incentives provided to land managers to fence and revegetate waterways, build stock containment areas, whole farm plan, improve irrigation and install water re-use systems
- Remnant vegetation fencing increased 332 percent to 5,040 hectares
- Number of whole farm plans increased 159 percent to 369
- Blackberry and gorse extension programs, delivered to over 400 landholders through the innovative Rural Extension Program, achieved exceptional voluntary compliance levels of 84 to 92 percent
- Murray Darling Basin irrigation management grants averaging \$18,327 for water use efficiency were provided to over 2,000 landholders.

Water reform

- Regional irrigation development guidelines were prepared by three catchment management authorities: Goulburn Broken, North East and North Central
- Water use licences were introduced
- State Government released discussion paper on the *Northern Sustainable Water Strategy*.

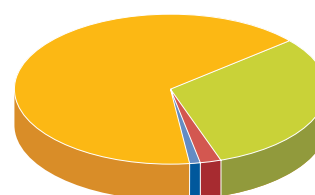
Recognition and milestones

- 2006-07 Annual Report won Australasian Reporting Awards Bronze Award and the Australian National Audit Office provided positive feedback
- Chief Executive Officer Bill O'Kane was a finalist in SACS Award for Leadership in Victorian Government Sector.

Funding

- Extra government investment of \$9.7 million over and above original budget largely from Drought Employment Program (\$2.9 million), sale of environmental water (\$2.9 million) and stream flow funding (\$1.5 million), taking total to \$37.1 million.

Goulburn Broken investment share



- The Environment - Community investment
\$63 million – 62.9%
- The Environment - Government investment
\$31.7 million – 31.7%
- The Business - Relationships, partnerships and community capacity
3.6 million – 3.6%
- The Business - Corporate and statutory
0.9 million – 0.9%

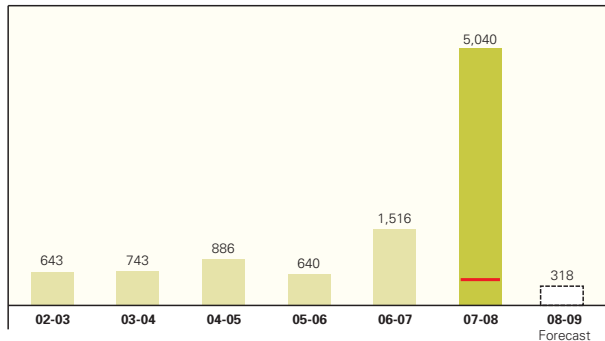
Outputs achieved from funds received through Corporate Plan 2007-08

Output	Achieved	Target	% Achieved
Remnant vegetation fenced, hectares	5,040	535	942
Long-term conservation agreements, hectares	373	1,000	37
Indigenous revegetation planted, hectares	460	625	74
Irrigation drains built, kilometres	9	7	129
Reuse systems installed, numbers	48	45	107
Irrigation systems improved, hectares	8,967	6,840	131
Groundwater pumps installed, numbers	25	12	208
Weeds treated, hectares	11,191	331	3,386
Rabbits and foxes treated, hectares	45,770	37,000	124
River or stream erosion treated, kilometres	556	231	241
Fishway structures, numbers	8.3	5.5	151
Fish habitat installed, numbers	30	50	60
Threatened species projects, numbers	37	37	100
Whole farm plans prepared, numbers	369	270	137

- Well below target (<50%)
- Below target (50–79%)
- On target (80–109%)
- Exceeded target (>110%)

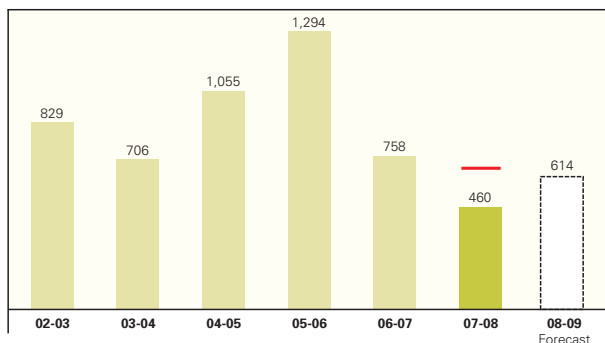
Exceptional achievement due to Drought Employment Project

Remnant vegetation fenced, ha



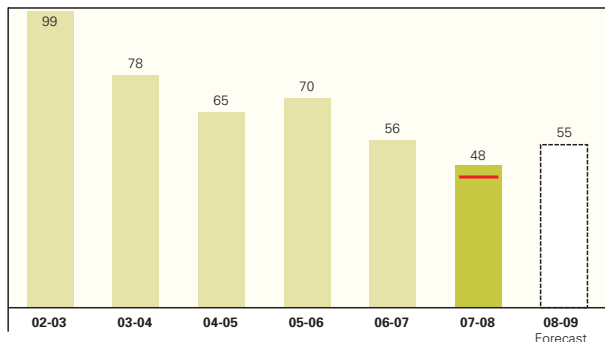
Performance impacted by dry conditions

Indigenous revegetation planted, ha



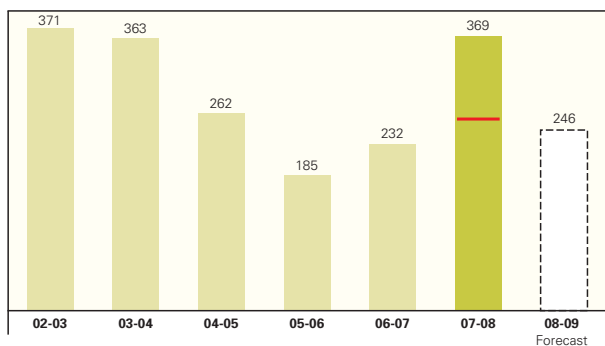
Strong interest due to decade-long dry period

Reuse systems installed, no.



Strong interest due to decade-long dry period and Foodbowl Modernisation Project

Whole farm plans prepared, no.



Notes on graphs: These are examples of outputs achieved through GB CMA's Corporate Plan. Output targets are forecast to be low in 2008-09 because of reduced indicative funding from Australian and State Government programs, although increased funding due to the Northern Victoria Irrigation Renewal Project is likely to increase some outputs.

A message from the Chair



The continuing low rainfall and poor seasonal outlook is a major challenge for the Catchment because it threatens the viability of many of our Catchment's farm enterprises and the health of our environment.

In preparing for the review of the Regional Catchment Strategy in 2009, the GB CMA is an active participant in a number of processes including:

- The Northern Sustainable Water Strategy
- The White Paper on Land and Biodiversity at a time of Climate Change.

We are still of the view we will not achieve our Regional Catchment Strategy objectives without landscape scale projects. Projects we are participating in include:

- Decommissioning of Lake Mokoan and the rehabilitation of Winton wetlands system
- Implementation of the Northern Victoria Irrigation Renewal Project.

Next year will see a significant reduction in funding due to change at the Australian Government level. Our objective is to continue to fund on-ground works whilst monitoring organisational capacity.

I would like to acknowledge our implementation committees and partners who help deliver our program.

Dr Huw Davies
Chair



2007–08 implementation committee highlights

- GB CMA's three implementation committees celebrated 10 years
- GB CMA won Banksia and Environmental Foundation's 'Water Award' for 'Vision for the Broken River Basin'. (This large scale river restoration initiative was completed in 2007-08, entered in the Award in 2007-08, and awarded in 2008-09.)
- Inaugural meeting of GB CMA's Groundwater and Salinity Management Working Group
- Over 1,500 students and community members participated in Water Week activities
- History of 20 years of Landcare in the Catchment prepared: Milestones, Memories and Messages
- Environmental water requirements for priority unregulated rivers and streams being developed
- Review of Goulburn Broken Water Quality Strategy (1996) concluded we are on the right path.

Mid Goulburn Broken Implementation Committee (MGBIC)

- Broken Boosey State Park completely fenced: 54 kilometres, 412 hectares, 50 landholders
- Environmental water delivered to Moodies Swamp (50 megalitres)
- Victorian Landcare Network Forum at Mount Buller in November attended by 120 Landcare coordinators
- Annual awards for outstanding achievement: individual award won by Alan Neander of Warrenbayne-Boho Land Protection Group; group award won by Strathbogie Tableland Landcare Group
- Continued involvement in planning and responding to decommissioning of Lake Mokoan
- A soil carbon forum attended by 60 landholders created a recipe for improved carbon sequestration
- Broken Boosey Conservation Management Network prepared calendar loaded with natural resource management information and photographs of local environmental features
- 89 whole farm plans completed. 585 hectares of terrestrial remnant vegetation fenced and 176 hectares revegetated through environmental management incentives
- Drought Employment Program crew fenced 88 kilometres (382 hectares) of streamside native vegetation.

Shepparton Irrigation Region Implementation Committee (SIRIC)

- Environmental water delivered to Reedy Swamp (544 megalitres), Kinnairds Swamp (413 megalitres) and Black Swamp (90 megalitres)
- Works completed to improve delivery of environmental flows to Brays Swamp
- 145 whole farm plans prepared and 48 reuse dams installed. 21 groundwater pumps installed (20 private and 1 public) protected a further 3,237 hectares. Equivalent of 9 kilometres of primary drains completed. A 200 megalitre storage was constructed through the drainage nutrient removal incentive scheme

- 8 automatic irrigation systems installed servicing 442 hectares taking totals to 127 systems and 7,631 hectares
- Environmental and tree-growing projects protected 48 hectares of terrestrial remnant vegetation and revegetated 94 hectares for corridors and understorey
- Drought Employment Program crew fenced 165 kilometres (1,856 hectares) of streamside native vegetation
- SIRIC working hard to align implementation of the Regional Catchment Strategy with Northern Victoria Irrigation Renewal Project (NVIRP). Policy response research into the Project during its proposal stage (as the Foodbowl Modernisation project) undertaken by practice change team. Linking farm irrigation needs with irrigation delivery infrastructure being built through NVIRP is a major focus
- Irrigation infrastructure information atlas completed and being used to help modernisation
- Regional Irrigation Development Guidelines completed
- Reports on best management practices for farm groundwater use prepared
- As part of the Irrigation Drainage Memorandum of Understanding, a catchment and asset operation plan for the whole of the SIR and the Barmah-Nathalia sub-catchment continued to be developed
- Management plans developed for Mansfield Swamp, Wyuna River Reserve, Millewa (ex-Cantwells) Nature Reserve and Nanneella Bushland
- Over 500 statutory planning cases addressed
- Five programs making up the Shepparton Irrigation Region Catchment Strategy reviewed. Strategy expected to be updated late 2008
- Yeilma project continues to be a shining example of how Indigenous people can lead the management of culturally and environmentally significant properties to benefit all Australians
- Muckatah Depression primary surface water management construction was completed with many partners. Area covers 60,000 hectares
- GB CMA won Victorian Certificate of Applied Learning 'partner' award for the RiverConnect Project.

Upper Goulburn Implementation Committee (UGIC)

- Rural Extension Program, reconfigured two years ago, has very successfully delivered pest animal advice and support to over 600 landholders in Merton, Creighton's Creek, Yea River, Home Creek and Glenaroua areas
- Janet Hagan from Hughes Creek Collaborative awarded Hubert Miller Perpetual Trophy for exceptional community engagement and John Fraser from Merton Landcare Group received Upper Goulburn Landcare Award for Excellence
- UGIC sponsored the Freshwater Fish Circus at Moore's Road Reserve in Strath Creek to draw attention to species in King Parrot Creek. A survey of Macquarie Perch in the Creek showed a 94 percent decline in numbers

- Water Week activities included an Aboriginal Corroboree performed by Wally Cooper's Dance Group
- Recreational Fishing Licence funding used for habitat works along Delatite, Rubicon and Goulburn Rivers
- Fire recovery funding used in areas affected by recent bushfires for works in upper reaches of Goulburn, Howqua and Acheron Rivers
- Whole farm planning includes options for dealing with climate variability
- Links with local government strengthened through UGIC representation on Murrindindi, Mansfield and Mitchell Shire environment committees
- Over 130 attended UGIC's Upper Goulburn Climate Change Forum
- Incentives for landholders resulted in 77 hectares of terrestrial remnant vegetation fenced and 190 hectares revegetated
- Pilot regional pest animal plan for 2008 to 2012 prepared, focusing on rabbits and foxes
- Drought Employment Program crew fenced 24 kilometres (104 hectares) of streamside native vegetation.

Our workforce

The GB CMA has built a relatively stable workforce, which provides the continuity necessary for a strong and long corporate memory and for trusting relationships with partner agencies, local communities and individual landholders.

As at June 2008, GB CMA's 53 staff comprise 26 females and 27 males, with an average age of 42 (compared with the Victorian public sector's 49). Fifteen staff are employed under flexible, family friendly policies.

In addition to GB CMA staff, up to 80 regional people affected by the drought worked under the Drought Employment Program in 2007-08.

2007-08 GB CMA Management Team

Bill O'Kane

Chief Executive Officer

Tim Barlow

Biodiversity Manager

Geoff Earl

Environmental Water Flow
Coordinator (Goulburn Broken,
North East and North
Central Catchments)

Kathy Fuller

Assistant to the Chief
Executive Officer

Stan Gibney

Business Manager

Tony Kubeil

Coordinator Mid Goulburn
Broken Implementation
Committee

Megan McFarlane

Business Development Manager

Ken Sampson

Executive Officer Shepparton
Irrigation Region Implementation
Committee

Wayne Tennant

Strategic River Health Manager

Guy Tierney

Floodplain Manager

Carl Walters

Waterways Implementation
Manager and Acting Executive
Officer Upper Goulburn
Implementation Committee

Richard Warburton

Occupational Health and Safety
Manager

What's next in 2008-09?

- Continue to develop and implement approaches to help adapt to climate change.
- Update the Regional Catchment Strategy, incorporating new directions from
 - GB CMA initiated regional strategic processes such as the Dryland Landscape Strategy, Shepparton Irrigation Region Catchment Implementation Strategy, Goulburn Broken Biodiversity Strategy and the Northern Victoria Irrigation Renewal Project
 - State directions such as the Land and Biodiversity at a time of Climate Change White Paper, State biodiversity strategy and the Northern Sustainable Water Strategy
 - National directions such as Water for Our Future and emerging climate change strategies
 - the new Murray Darling Basin Authority and the revised Murray Darling Basin Commission's Basin Salinity Management Strategy
- Recovery programs for threatened species impacted by fire and drought
- Working with partners to tackle weeds and pests via enlarging the Rural Extension Program
- Continued momentum of the Goldfields Conservation Management Network
- More targeted biodiversity conservation activities in priority biolink zones
- Implementation of strategic river health and biodiversity projects arising out of the sale of water to Bendigo and associated towns
- Rehabilitate drought affected areas via implementation of whole farm plans
- Manage environmental issues associated with decommissioning of Lake Mokoan, especially restoring the wetland
- Targeting farm works to the Northern Victoria Irrigation Renewal Project.



Photo acknowledgements

Luke Commisso, Carla Miles, Paul O'Connor, Ray Sizer, Keith Ward

What is the Goulburn Broken Catchment Management Authority?

Note that the Shepparton Irrigation Region Implementation Committee delivers the Regional Catchment Strategy in that part of the region which is in the North Central Catchment.



Our Vision for the Goulburn Broken Catchment*

A catchment recognised locally, nationally and internationally for quality agricultural produce and where community values contribute to the benefits of abundant and well maintained environmental assets used for tourism and recreational activities.

The environmental footprint of irrigation and dryland farming will be significantly reduced, with farmers occupying less land and using less water whilst managing their resources more sustainably. New opportunities will arise for increasing ecosystem services provided by the land retired from agriculture and improved environmental flows.

The region's economy will be robust, with much of the agricultural produce processed within the region, generating employment and wealth creation opportunities for a regional community actively engaging in natural resource management programs.

*Goulburn Broken Regional Catchment Strategy 2003

The Goulburn Broken Catchment Management Authority (GB CMA) is a Victorian statutory authority that coordinates land, water and biodiversity management in the Goulburn Broken Region.

The Victorian Government appoints Board members from the Region every three years.

Like any organisation where large investments are made, members of the Board have an ethical and financial obligation to do what's best for the Region and its environment.

The GB CMA managed \$37 million in 2007-08 from State, Commonwealth and local governments. Major investment areas are irrigation salinity, river health (including environmental flows and water supply), biodiversity, climate change and community capacity. The dry period that began over a decade ago is influencing much of the GB CMA's efforts.

Links to the Region's extremely diverse cultural groups are maintained through projects with partner organisations, including Landcare, Departments of Primary Industries and Sustainability and Environment, Goulburn-Murray Water, Goulburn Valley Water, local government, Environment Protection Authority and industry bodies.

2007-08 Board members*

Stephen Mills (Chair until his resignation in December 2007)

Huw Davies (new member and Chair from March 2008)

John Pettigrew (Acting Chair December 2007 – March 2008)

Neville Barwick

Don Cummins

Yvonne Davies

Peter Fitzgerald

Lyn Gunter

Anne McCamish

Nick Roberts

*The Board's three-year term ends on 30 June 2009.

Our environment and people

Our Region covers 2.4 million hectares. 1.4 million hectares is dryland agriculture, 270,000 hectares is intensively irrigated agriculture and 800,000 hectares is public land. The annual economic output of the Region is \$9.5 billion with the bulk of this generated in the Shepparton Irrigation Region.

Over 200,000 people live in the Region, including 6,000 Indigenous Australians, many from the traditional owner groups, the Taungurung and Yorta Yorta clans. In the north, original settlers from the British Isles have been followed by migrants from Greece, Italy, Albania, Turkey, Iraq, Afghanistan, India, the Democratic Republic of Congo and many other countries.

The average age of our farmers is increasing. There is a shift from traditional to 'lifestyle' farming in areas within two hours of Melbourne. Farms are being corporatised in parts of the Catchment. Small-scale irrigated agriculture is declining.



Communities contributing to the environment

There are many people and local communities who care for the welfare of our environment and who participate in many different ways. The regional community contributes (in-kind, products and services) about double what governments contribute. Management of private land is critical to the environment and prosperity of the Region.

The GB CMA is well positioned to respond to rapidly changing landholder demographics. Implementation of projects framed under the overarching Goulburn Broken Regional Catchment Strategy is driven by three geographically-based implementation committees to ensure activities of the GB CMA reflect the views of local communities. Several facilitators and coordinators support more than 200 community groups that help to deliver the Strategy.

These groups include 83 Landcare groups that are part of six Landcare group networks.

From October 2008, the Mid Goulburn Broken and Upper Goulburn Implementation Committees will merge into one.

2007-08 Implementation Committee Chairs

Mid Goulburn Broken	David Dore
Shepparton Irrigation Region	Peter Gibson
Upper Goulburn	Chris Doyle

The GB CMA has employed an Indigenous Facilitator since 2005 to link natural resource management with environmental and cultural needs of Indigenous Australians. The GB CMA's Municipal Catchment Coordinator similarly links natural resource management with local government in the Shepparton Irrigation Region Implementation Committee area.

The Goulburn Broken regional community has a relatively long and successful history in developing and implementing integrated catchment management strategies. In the 1980s the Goulburn Broken region piloted a whole of community response to the threat of rising water tables and associated salinity.

Change in condition of the Catchment related to investment areas between 1990 and 2008

Investment area	Catchment condition* change			Comments
	1990**	2008	Certainty of ratings	
The Environment				
1 SIR salinity: watertables and River Murray salinity	Poor	Good	Medium	Very large investment in water-use efficiency since 1990 means system can better withstand a run of wet years. Major investment in Foodbowl Modernisation project in next few years will improve condition in terms of salinity further.
2 Dryland salinity: watertables and River Murray salinity	Poor	Satisfactory	Low	Impact of record decade long dry period on land salinisation and river salinity has dwarfed the impact of human intervention with reduced rainfall levels reversing the rising watertable trend in much of the upland areas. However, in the riverine plains there is a mixed response: some areas show continued rising trends in groundwater levels and other areas are falling in response to increased groundwater use, at least locally. This affects the confidence we have in targets we have set. Work is underway at regional and Australian Government levels, through the MDBC, to define targets in light of likely climate change and an extended dry climatic phase.
3 Environmental flows and water supply	Poor	Very poor	Medium	Stress on systems from decade long dry period since 1997 has highlighted vulnerability of systems. Dramatically increased water-use efficiencies in some sectors have been countered by reduced availability. Proposed increases in Environmental Water Reserve will improve resilience. There has been increased planning for the lower inflows under expected drier conditions.
4 Riparian and instream habitat and channel form	Poor	Satisfactory	Medium	Extensive works programs have improved state of system for terrestrial and aquatic species and contributed to improved water quality.
5 Water quality (nutrients) in rivers and streams	Very poor	Satisfactory	High	Became an issue in early 1990s. Installation of major waste water treatment facilities, better managed irrigation (including reuse dams) and waterways revegetation means that the whole of catchment system has dramatically reduced phosphorus loads and reduced risk of algal blooms.
6 Biodiversity	Poor	Poor	Medium	Many systems that support biodiversity are vulnerable to changing state. Habitat loss and fragmentation threatens the viability of many ecosystems.
7 Climate change	Poor	Poor	Low	Not considered a major issue in 1990 even though it probably was. Recent dry years have stretched many systems to the limits but people have learnt to adapt. Although we accept that climate change is a reality, we do not know how much of this extremely dry phase is due to a fundamental shift in climate and how much is due to climate variability.
8 Flood protection	Very poor	Poor	Medium	Built environment in better state with improved pre-development planning and flood response systems. Natural environment better placed to receive floodwater, however large opportunities remain uncaptured.
9 Pest plants and pest animals	Poor	Poor	Medium	Terrestrial and aquatic environments remain vulnerable to new and emerging weeds. Better understanding of what and how to target now, although capacity to deliver changes has declined in some areas.
The Business				
A Corporate and statutory operations	Poor	Satisfactory	Medium	Advent of CMAs in 1997 rationalised institutional arrangements.
B Our people	Satisfactory	Satisfactory	Medium	Skills, experience and continuity of regional natural resource management staff remain at high levels. GB CMA processes for managing staff compliance issues, staff succession, and balancing age, gender etc are well established.
C Planning and responding	Poor	Satisfactory	Medium	Strategies and implementation approaches developed for many issues, such as integrated catchment management, water quality, biodiversity, floodplain management, river health management. Positioned to rapidly respond to emerging issues.
D Knowledge	Poor	Satisfactory	Medium	Knowledge base in many areas now far exceeds capacity to apply it. Developing system resilience approach is likely next phase.
E Relationships, partnerships and community capacity	Poor	Poor	Low	Constant focus for effort. Knowledge systems of agency-landowner relationships in the Catchment has improved and this is resulting in better targeting, although capacity of landowners to deliver change has declined in many areas because of drought. Challenge emerging in western world since 1990 is rapid turnover of staff in all jurisdictions. Corporate memory at all levels is a major issue. Better information systems being built to inform new staff quickly so they can more readily respond to needs.
F Our environmental footprint	Very poor	Poor	Low	Environmental concern became mainstream in the early 1990s. Since then, there has been dramatic growth in awareness of how we can improve our everyday practices and behaviours to reduce impacts. There is still significant room for improvement. The inclusion of this issue as an investment area in this year's Annual Report reflects the growth in its importance for organisations.

* Ratings consider evidence of resource condition, resilience, adaptability and transformability of the Catchment related to the investment area such as indicators of resource condition, social and economic health and catchment management systems. Further background on Catchment condition is on page 68 of the full Annual Report under 'Understanding progress and ratings'.

** Ratings for 1990 have been determined using our understanding in 2008 of what the situation was like in 1990. 1990 is an appropriate reference year because it was about this time that integrated catchment management was born.

Categories:

Catchment condition	Certainty of rating
Very poor	Very low
Poor	Low
Satisfactory	Medium
Good to excellent	High