

2005-06

Goulburn Broken Catchment Management Authority Annual Report



Scope

The 2005-06 Annual Report of the Goulburn Broken Catchment Management Authority (GB CMA) is prepared in accordance with all relevant Victorian legislation. Refer to the Disclosure Index at the beginning of the "Financial Information, Governance and Risk Management" section.

The GB CMA is making a concerted effort to sort ever-increasing quantities of data to make it easier for readers to understand issues at the level they are interested in. This document is part of this effort and those who want more detailed data are encouraged to visit the GB CMA website www.gbcma.vic.gov.au

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Goulburn Broken Catchment Management Authority Chairman's Review of Strategy Progress

Progress towards longterm strategy targets

I am pleased to report that the GB CMA delivered works at rates that exceed expectations of government funders.

Our efforts to demonstrate progress towards the Regional Catchment Strategy's (RCS)

long-term targets are leading Australia. The approach is helping to guide our investment decisions and prompting significant questions for research. We have built upon our consolidated list of works 'outputs' that appeared in the past two annual reports and have provided explicit ratings and discussion of progress towards targets.

Although we have been delivering well documented benefits for 16 years in the Shepparton Irrigation Region (SIR) (including economic, environmental and social benefits), the GB CMA is falling behind long-term Murray River salinity and land salinisation targets due to reduced investment in the salinity program.

A solid package of measures to deliver further water savings and large complementary salinity and water quality benefits has been successfully developed in the irrigation region with North Central CMA. The package emphasises integrating systems from the supply dam to the root-zone and capitalises on the maturity of partnerships at all levels. We are seeking National Water Initiative funding for the package.

The Victorian Government's Our Water Our Future program has guided our investment and activity. The appointment of Environmental Water Manager Geoff Earl who is working across three CMAs resulted in significant progress in our role as caretaker of river health through planning activities, and the successful operational management of flows in Barmah Wetland and the Broken Creek.

Despite employing more people to manage the environmental water our organisation maintained the lowest ratio of staff to funding of all Victoria's CMAs. We attracted \$26 million from government and other sources to implement the RCS, up 2% on 2004-05. The regional community contributed more than \$50 million in cash and in-kind support to natural resource management. Of the \$26 million, approximately 72% went to on-ground works, with the remainder spent on meeting our statutory obligatioins, capacity building and long-term planning and administration.

We delivered on all funded works targets in year one of implementation of the Goulburn Broken Regional River Health Strategy. Despite massive investment, funding may fall short of what is required to meet 2015 targets and the challenge will be to do more with less and an extension of the timelines for implementation will almost certainly need to occur.



Research by Sinclair Knight Merz and CSIRO revealed that mechanisms for managing dryland salinity are questionable and that in the south west part of the catchment extensive tree planting to reduce salt loads will also cause a

significant reduction in the availability of water for drinking and agricultural use. The community is being extensively engaged on this issue.

We have taken a multidisciplinary approach to managing the environmental water reserve using our floodplain, water quality, biodiversity and stream health skills and programs to achieve multiple benefits.

513,000 ML was released to provide extended flooding of the Barmah-Millewa Wetlands. This was the first significant flood event for five years. It resulted in major responses in colonial waterbird, fish and frog breeding and improved vegetation health in 55% of the wetland.

Recent analysis shows that while we are meeting native vegetation targets on an annual budgeted basis, the targets set in 2000 are likely to be overly optimistic, at least within the timeframe of 2030. We will be working to understand the implications of this.

The GB CMA is playing a lead role to ensure that the community is fully engaged in the decisions for the future land use of Lake Mokoan as its decommissioning proceeds as part of the State Government's water savings initiatives.

The Lower Goulburn Floodplain Rehabilitation proposal failed to receive the support of the Australian Government despite the support of the State and exhaustive studies over several years that confirmed its merit and a benefit cost ratio of 1.68:1. On the advice of the State Government, the scheme was abandoned.

The Goulburn Broken Catchment has excellent relationships with many research bodies. This year's research efforts included:

- Irrigation futures
- Monitoring the movement of native fish communities following the construction of Fishways on the Broken River;
- Monitoring the recruitment and movement of native fish communities in the lower Broken Creek;
- Establishment of benchmarks surveys to assess changes to flora, fauna, water quality and channel morphology following changes to flow regimes in the Broken and Boosey Creeks;
- Monitoring natural regeneration of native vegetation at Bush Returns sites; and
- Assessment of riparian projects in the upper Goulburn Region.



Community engagement and research provide the solid foundation for the Goulburn Broken Regional Catchment Strategy. The strategy is to be updated by November 2008 and ensuring community ownership as this happens will be a priority.

Stakeholders contributing to the update of the RCS will be better informed thanks to progress in monitoring, evaluation and reporting. Our progress in this area played a major role in the success of a \$7 million funding bid that will further clarify our strategic goals. A project under the Commonwealth Environment Research Facilities program will begin in 2006-07 and will see the GB CMA partnering leading research bodies and neighbouring CMAs.

The Goulburn Broken Community Landcare Support Strategy 2005-2010 came into effect on July 1st 2005. A Landcare Monitoring, Evaluation and Learning Plan has been in place for 12 months. The plan captures data from Landcare projects, events and activities and will be used to produce a 2005-2006 Landcare Report Card.

Unique community engagement solutions are continually evolving to support our extensive works programs.

The scale and scope of the GB CMA works program and our ambitious plans for achieving landscape scale change continue to place significant demands on our staff and volunteers.

The strength of leadership provided by our Board, management team and the implementation committees has been central to the success of the GB CMA. We have experienced a decade of stability and continuity within our organisation, partner agencies and implementation committees. Succession planning is crucial to maintain momentum and this is receiving increased emphasis.

Thank-you to the 12 Directors who completed their three-year appointments on June 30th. The induction of new Board members and new agency and community staff is an important area of focus in 2006-07.

Acknowledgments

Our success can be attributed to our strong partnerships with local government, DSE, DPI, Goulburn-Murray Water, Goulburn Valley Water, Landcare and many others and the sophisticated delivery arrangements refined over many years.

Our reputation depends on the attitude and performance of every member of GB CMA, partner agency staff and natural resource community. Thank-you all for creating an enthusiastic culture and for staying with the huge on-going task before us and to Chief Executive Officer Bill O'Kane and his team of dedicated staff for their extraordinary efforts.

Recognition must also go to government and other funding partners for having the faith in the GB CMA to continue to deliver on work targets while adopting a process of continuous strategic improvement. Thanks also to our partner organisations that fund RCS works. For example, local government and Goulburn-Murray Water contribute about \$1 million to the delivery of the SIR catchment strategy.

We have revamped our Annual Report this year to better link inputs and outcomes and I urge you to read this document for a better understanding of the partnerships, programs and success stories that make our catchment unique.

Stephen Mills *Chair* – Board of Directors



Goulburn Broken Catchment Management Authority Chief Executive Officer's Report

CEO's Report on Delivery of the Regional Catchment Strategy

I am proud to report on excellent results for the ninth year of delivery by the GB CMA.

We have taken another leap in showing progress against annual and long-term Regional Catchement Strategy (RCS) targets. A list of strategic outcomes has been developed (see "Results Summary") to focus management and to help communicate to partners, especially government funders, the emphasis, scale and scope of GB CMA programs.

Partnership strength and funding levels

Our extensive works programs are delivered by a waterways works arm and via extensive and sophisticated partnerships. We rely heavily on landholders to deliver change and three Implementation Committees – Upper Goulburn, Mid Goulburn Broken and Shepparton Irrigation Region – oversee engagement to ensure it is targeted to suit the unique characteristics of their communities. Local Area Planning continues to evolve as an effective mechanism to fast-track integrated works in the SIR Catchment Strategy.

The GB CMA budget outlook for 2006-2007 is similar to this financial year, however 2007-2008 is the final year of NAP and NHT and funding projections are 62 per cent and 89 per cent respectively for these programs. This could see our current budget of \$26 million fall to \$21 million.

Mature delivery mechanisms in the SIR (now into the 17th year of implementing a 30-year plan) have resulted in continued strong performance. The initiatives put in place to control salinity are now achieving enormous irrigation water use efficiencies. Works aimed at achieving within Catchment and Murray River salinity benefits and complementary water savings are being delivered at unprecedented rates in spite of a slight decrease in funding (4%). Construction of primary surface water management schemes was up 38% to 11 km and the number of water reuse systems installed was up 4% to 70. The delivery of these results in an era of unprecedented reduced water allocations in the SIR is an impressive achievement.

The Irrigation Futures Project has seen stakeholders engaged to develop a shared vision for and to make informed choices about the future of irrigation in the catchment. A stakeholder-based technical working group has analysed how the region might respond to four plausible scenarios developed by the project. The project has also looked at overseas developments and their implications in the SIR and is developing written materials



to assist stakeholders to implement project recommendations.

The level of native vegetation works continues to please with delivery synergies resulting in 81% of the 2,691 ha of works being delivered by programs other than the GB CMA's biodiversity program budget. We are undertaking a study to determine the extent of works undertaken outside of the GB

CMA's budget which add further to these figures.

The innovative Bush Returns trial built momentum this year with a second round covering the entire catchment. The project received substantial interest from a diverse spread of landholders particularly across the mid and upper catchments. The program's new approach has secured (on title) 502 ha for natural regeneration of native vegetation over 15 properties. Ongoing, active management is being encouraged through site specific management plans and annuity payments to successful landholders. This approach has drawn together and implemented many of the landscape change concepts that have been on the agenda for the past five years.

GB CMA played a major role in attracting \$2.7 million for detailed studies into flood management in the catchment and with the Greater Shepparton City Council co-hosted the State Flood Conference. Floodplain management studies were completed for Nathalia, Tatura and Seymour and flood studies undertaken for Yea and Merrigum.

The Upper Goulburn Implementation Committee continued to adapt delivery of natural resource benefits in response to one of the most dynamic areas of Australia, where an influx of "tree-changers" has seen rapid change in land ownership and land use. Major inroads have been made in the control of invasive willows along upper catchment waterways and the GB CMA remains committed to tackling this weed of national significance.

Service delivery in the Mid Goulburn Broken area has been reviewed and improvements and efficiencies have been earmarked for implementation in 2006-07.

Significant milestones in strategic initiatives

Research in the catchment has highlighted problems with existing mechanisms for delivering improvements to dryland salinity. At the direction of the Board, a review of all natural resource issues in the dryland and a "Landscape Strategy for the Goulburn Broken Dryland" is being developed. Technical experts contributed to the first stages of the project and there will be broader consultation leading up to the update of the RCS in 2008. The review has already uncovered a number of gaps in knowledge and these have formed the basis of funding bids.

Planning for the protection of wetlands was given more focus in 2005–06. A draft methodology to rank wetlands and wetland systems across the Catchment was developed. This was supported by detailed implementation plans and mapping projects for the Broken, Boosey and Nine Mile creeks; mapping of peatlands and spring soak wetland systems and the design of a bio-remediation wetland for Gemmill's Swamp.

Management strength and our people

There has been great stability and continuity within our senior management team and indeed all staff. The GB CMA provides strong leadership at all tiers of natural resource management. Because of our willingness to "push the envelope" we are partnered by many research organisations and more than ever we understand the importance of research to inform decision-making, particularly in relation to salinity and landscape change.

Professional development is a component of the performance plan of each of our staff members. This year saw three members of the senior management team complete the Australian Institute of Company Directors' Course.



The future

The past year has been an exciting and challenging one and I thank the Board, colleagues, partner organisations, funders and landholders for their continued support and dedication. We are proven leaders, adaptable in the face of change and will continue to strive to develop new strategic natural resource management solutions based on the best science and information available.

Bill O'Kane Chief Executive Officer



Goulburn Broken Catchment Management Authority Highlights of 2005–06

Across the Catchment

- Investment of over \$50 million from regional community in works to sustain natural resources and a government to regional community investment ratio of more than 1:2.
- Endorsed Goulburn Broken Regional River Health Strategy. The document will guide river health priorities for the coming ten years.
- Participated in Bush Returns, BushTender, EcoTender, and RiverTender and research into linking farm business and biodiversity outcomes.
- Flooplain management studies completed for Nathalia, Tatura and Seymour and flood studies undertaken for Yea and Merrigum. Hydrodynamic modelling completed for Barmah-Millewa Wetland.
- Hosted the Fourth Victorian Flood Management Conference in Shepparton with Greater Shepparton City Council. The conference theme was "Prevention, Response, Recovery".
- First annual GB CMA Landcare Report Card shows contribution of Landcare to natural resource management outcomes.



- The Premier, Mr Steve Bracks, launches RiverConnect and opens newly leased GB CMA office in Shepparton.
- Sponsored nine schools to participate in the International River Health Conference at Mildura.



Across the Implementation Committees:

Shepparton Irrigation Region

- Achievement of all works with budget cover.
- Survey of dairy farmers in the Central Goulburn Irrigation Area shows 91% have irrigation reuse systems with 79% using these systems at most irrigations.
- Drain flow leaving the SIR less than 3% of water delivered into the SIR. This is the fifth year running that the SIR has kept below long-term nutrient targets.
- 513,000 ML environmental allocation used to flood Ramsar-listed Barmah-Millewa Wetland triggering major bird, fish breeding event. Environmental flows also occur at Bray's, Reedy and Kinnaird's wetlands.
- Midterm review of the Water Smart Farms program provides a favourable report on the effectiveness and accountability of the implementation of the SIR Catchment Strategy. The midterm National Action Plan for Salinity and Water Quality (NAP) review also reports favourably on SIR activities.
- Third review of the SIR Catchment Strategy begins and will feed into the GB RCS in 2008 and the Victorian Sustainable Irrigation Strategy.
- Planning Scheme amendment for Murray Valley Drain 11 gazetted after five years of review.
- Waterway Management Plan completed for the lower Broken Creek. Following completion of the lower Broken Creek Strategy in 2004/2005 a detailed works and activity plan is developed.
- Stage Three and Drain Three of the Muckatah Surface Water Management System launched. They are part of a system that will eventually serve 60,000 ha. Stage Three cost \$2.7 million and is 13.3 km long. Drain Three cost \$824,000 and is 3.7 km long. Campaspe 3A Primary Surface Water Management

System launched. Campaspe 3A services a catchment of 3,000 ha.

The Hon Peter McGauran, Minister for Agriculture, Fisheries and Forestry, officiates at a celebration acknowledging sign off on the 100th Automatic Irrigation Grant in the SIR and 15 years of Incentives for Private Groundwater Pumps in the SIR.



Mid Goulburn Broken

- GB CMA soil health workshop attracts 60 participants to discuss an action plan for the Goulburn Broken Soil Health Strategy. A Soil Health Steering Committee is formed and will present actions to the GB CMA Board in late 2006.
- 300 landowners participate in the Balanced Productive Soils Project that highlights the importance of monitoring and evaluating soil condition and the processes to correct imbalances and deficiencies.
- 123 Broken Basin landholders were contacted to undertake works on waterways with riparian assessments carried out on most of their properties.
- Sixty-nine kilometres of Mid Goulburn Broken stream were fenced to protect the riparian zone and native vegetation.
- The Mid Goulburn Broken IC oversees community engagement for the future land use of the area occupied by Lake Mokoan. Following extensive consultation, the final option will be presented to the State Government in late 2006.
- A Good Environment Sells A manual to assist real estate agents identify and market environmental values is developed.
- Debbie Hill of the Warrenbayne Boho Landcare group announced winner of the annual Mid Goulburn Broken Landcare award. This group is one of the longest established Landcare groups in Australia.

Upper Goulburn

- Six schools, GB CMA, Waterwatch, Landcare and University of Melbourne participate in a project that sees students in the Murrindindi cluster study wetland ecology, flora and fauna, terrestrial habitats and threatened species.
- Lesley Dalziel is awarded the Upper Goulburn IC's Hubert Miller Perpetual trophy. Lesley is recognised for her work to highlight environmental issues in the Seymour area and lead role in the Light Horse Park project. The Upper Goulburn Landcare Award for Excellence is presented to Roger Cook of Kinglake Landcare group. Roger is recognised for his work in the Kinglake area over the past 20 years.
- In a survey of Macquarie Perch DSE's Dr Janet Pritchard identifies populations in the Hughes, King Parrot Creek and Yea River. Rakali (Water rats), platypus, and other native fish are also recorded. The healthy populations are attributed to willow removal and revegetation works.
- Woody weed management and revegetation occur on the Jamieson, Howqua and Delatite Rivers. Native trees, grasses and groundcovers are used to restore wildlife corridors. Extensive works occur on the King Parrot Creek following completion of a stream flow management plan.
- The Upper Goulburn IC meets with municipalities and supports roadside management and wetland planning, environmental committees and new landholder kits. With Murrindindi Shire, the GB CMA supports CSIRO research into natural resource management offsets for development.
- A sub catchment risk assessment undertaken by the south west Goulburn community reveals high levels of revegetation will have a positive effect on salinity discharges from the area but impact negatively on water yields for urban and rural use.



2005-06 Results summary for major strategic areas

Asset	Major strategic area	Estimated investment* \$,000		Achiev Short Term 2005-06 funded target	ement against target Long Term Since Strategy Start		
		2004-05	2005-06	Works or Support \$ target (non works action)	Strategy Resource Support life condition change (non works (from action) intervention)**		
Environment		1	1	Works			
1 Land	1A Land salinisation and waterlogging in the SIR***	13,354	12,837		1990-2020		
	1B Land salinisation in the Dryland	3,113	3,179		1990-2050		
2 Water	2A River Murray salinity from the SIR***	part of 1A	part of 1A		1990-2020		
	2B River Murray salinity from the Dryland	part of 1B	part of 1B		1990-2050		
	2C Environmental flows	479	838		2004-		
	2D Riparian and in-stream habitat and channel form	5,129	5,738		2005-2015		
	2E Water quality (nutrients) in rivers and streams^	221	203		1996-2016		
3 Biodiversity	3A Native vegetation	2,512	1,975		2000-2030		
4 Air	4A Climate change	30	20	no targets set	No strategic approach developed yet		
Economics				\$	S		
5 Built	5A Flood protection	479	254	\$ targets to be developed	2002-2012 \$ targets to be developed		
6 Financial	6A Generating and managing revenue from government and the regional community		397	targets to be developed	no formal targets strategy to be developed		
Social		I	I	\$ \$			
7 People	7A Staff			targets to be developed	2005 (draft) targets to be developed		
	7B Communities and leadership			targets to be developed	2005-2015# n.a.		

 Government investment through GB CMA books (does not include other sources); does not include funds brought forward or carried forward;

integrated nature of projects makes it difficult to be precise with estimation in some cases.

- ** This is the expected impact of all actions on resource condition. Direct measures of resource condition are made at different intervals for different parameters, usually 5-10 yearly. This enables the assumed impacts to be tested [Outcomes (resource condition) = Outputs (actions) x Assumptions (impacts)]. Factors such as weather and changing demographics might have a significant impact on resource condition and the impacts of these cannot be shown in this table - they are more appropriately discussed as sub-strategies are reviewed.
- *** Actions to manage salinity have complementary water-use efficiency benefits. Reporting on these benefits will be explicit in the 2006-07 Annual Report.
- ^ Works completed for water quality are via other strategic areas and via third parties.
- # Landcare Support Strategy; strategic approaches for other community and leadership areas likely to be developed.



Goulburn Broken Catchment Management Authority The Goulburn Broken at a glance

Goulburn Broken Catchment Management Authority is a Statutory Authority established by the Victorian Government to co-ordinate land, water and biodiversity management in the Goulburn Broken region. The CMA's objectives, functions, powers and duties are further defined in the CaLP Act 1994.

The GB CMA plays a lead role working with the community, Government and funding organisations to protect and enhance land, water and biodiversity resources. It reports to the Hon John Thwaites, MP Minister for Environment and Minister for Water.

The GB CMA works in partnership with all tiers of government, landholders (current and traditional), universities and research organisations, and other authorities and agencies such as Landcare, the Department of Primary Industries (DPI), the Department of Sustainability and Environment (DSE) and Goulburn-Murray Water (G-M Water) to create innovative solutions to land, water and biodiversity issues.

Funding, drawn primarily from State and Federal Government, is targeted to achieve integrated works identified as the highest priorities for the region. The works are underpinned by collaborative research which at its best leads to multiple benefits by, for example, combining the best available science with the practical challenges of running a productive farm or maintaining a waterway for environmental and tourism benefits.

On-ground works aims to improve the region's social wellbeing, environmental quality and productive capacity in a sustainable manner.

Members of the GB CMA Board of Directors are drawn from within the region. Together they have extensive experience and knowledge of primary industry, land protection, water resource management, waterway and floodplain management, environmental conservation, local government, business and financial management.

Under the direction of the Board, the GB CMA has developed detailed environmental management strategies. An over arching document - Goulburn Broken Regional Catchment Strategy - sets out priorities and goals for policy, funding and works.

This integrated approach to natural resource management ensures that issues are not looked at in isolation, but on a catchment-wide scale with outcomes designed to achieve multiple benefits. All of the works undertaken within the catchment fit within State, Murray Darling Basin and National strategies.

Implementation Committees drive the works programs to ensure the activities of the GB CMA reflect the views of local communities. Goulburn Broken CMA offers an array of incentives to landholders wishing to undertake environmental works. The GB CMA website **www.gbcma.vic.gov.au** is a good starting point for more information about this and other programs.



Goulburn Broken Catchment Management Authority The Goulburn Broken at a glance

Snapshot	
What:	Goulburn Broken Catchment Management Authority.
Established:	The GB CMA is one of 10 CMAs established in 1997 under the CaLP Act and covering the State of Victoria.
Where:	Victoria, Australia - the catchment extends north of the city of Melbourne to the – the border with New South Wales.
Extent:	The Catchment covers some 2.4 million ha across the municipalities of Campaspe, Moira, Strathbogie, Mansfield, Mitchell and Murrindindi, the City of Greater Shepparton and the Rural City of Benalla.
Population:	185,000 includes 6,000 indigenous Australians, many of them from the traditional owner groups the Taungerang and Yorta Yorta Nations. In the catchment's north, original settlers from the British Isles have been followed by migrants from Greece, Italy, Albania, Turkey, Iraq, Afghanistan, India and many other countries. The Iraqi community alone numbers 6,000.
Major cities/towns:	Shepparton, Benalla, Yarrawonga, Seymour, Kyabram, Kilmore, Cobram, Numurkah, Euroa, Mansfield, Alexandra, Tatura, Yea.
Land Use:	Irrigated dairy, horticulture, viticulture, dryland grazing, cropping, timber production, lifestyle, thoroughbred horses, tourism.
Environmental problems:	Degraded rivers, loss of native vegetation, water quality, dryland and irrigated salinity, loss of biodiversity.

Delivering across our communities through Implementation Committees

Three geographically-based community committees appointed by the GB CMA provide a conduit between the community and the GB CMA and its Board of Directors.

The implementation committees comprise community representatives and non-voting members from partner agencies. They set works priorities and develop and oversee the implementation of annual integrated natural resource management programs in the Upper Goulburn, Mid Goulburn Broken and Shepparton Irrigation Regions. The works reflect the priorities of the RCS and are delivered by the GB CMA and partner organisations notably DPI, DSE, G-M Water, Landcare and local government.

Waterway Working Groups for each of the implementation areas also draw in the skills and networks of community members.



Standard GB Threat or Impact Managed	Output	Shepparton Ir Target* Achie	rigation Regi %	on N Target*	Achieved	n Broken % Achieved	Up Tarrat*	per Goulbu	rn Achieved	Tarcet* A	otal for 200	5-06 Achieved	Total Achieved
Threat													
Land and water use practices													
Stock grazing (ha = terrestrial; km = riparian)	Fence terrestrial remnant vegetation (ha) Fence wetland remnant(ha) Fence stream/river remnant** (ha) Off-stream watering (no) Binding Management Agreement (license, Section 173, covenant) (ha)	77 133 48	145 6 32 32 34 34	39 180 13 0 13 0 13 0 13 0 14 0 15 0 16 0 17 0 18 0	302 940 950 950 950 950 950 950 950	170 157 89	125 0 22	68 33 1 0 2 38 1 2 9 8 2 9 8 2 9 8 7 2 9 8 7 2 9 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	54 93 173	382 13 92 1,000	519 6 115 89 758	136 43 125 77 76	771 24 91 797
Induced Threat													
Saline water and high watertables													
Surface water	Landform/lasergrading (ha) Drain – primary (km) Drain – community (km) Weir – replace (no) Fam reuse system (no) Drain – additional water diverted from regional drains (ML) Irrigation systems – improved*** (ha) Pasture – plant (ha)	7,700 7, 8 12 12 55 570 8,200 8,	700 6 70 235 235 200 10 200 10 200 10 200 10 200	88 83 23 11 11 200 200 200	380 1,5340	844 767	45 50	o o	0 O	7,700 8 12 55 570 8,290 250	7,700 11 6 70 235 8,580 1,543	100 138 53 127 41 103 617	7,700 8 0 1,350 1,532 1,532
Sub-surface water	New groundwater pumps – public (no) New groundwater pumps – private (new and upgrade no) Volume water pumped (NL) Tille drains – install(na) Revegetation - Plantation / Farm Forestry (ha)	1,400 1,400 1,	800 0 0 0 0 0 0	50 Z	42 0	8	6 2	20 O	0 139	2 1,400 0 90	3 11 1,800 97	150 7 <mark>9</mark> 129 108	3 10 1,071 0 129
Nutrient-rich & turbid water & suspended solids	Waste water treatment plants - install (no) Stormwater management projects (no)	0 -	0 1 10	3	-	33				0 4	2	50	2 0
In-stream and near-stream erosion	Bed and Bank protection actions** (km) In-stream & tributary erosion controlled** (km)	70	د 0	39 45 45	9 4	132 31	8.5 94	0 488	0 519	23 139	16 502	72 361	41 916
Changed flow pattern	Water allocated - eg wetlands (ML)	0	0								510,000		266
Weed invasion	Weeds – woody weed management (ha) Weeds – aquatic weeds controlled/gradicated (km) Landholders complying with requirements under CALP Acti in targeted areas (%) Targeted infestations of weeds in high priority areas	15 0 95 46,801 41,	27 18 33 100 10 342 8	30 26 35 95 38 210,302	19 00	75 0 0	21 95 48,020	29 96 26,595	140 95 55	62 0 95 305,123	75 33 96 69,437	122 96 23	70 21 96 281,200
Pest animals	Covered by control programs way Landholders complying with requirements under CALP Act in targeted areas (%) Area of high priority rabbit infested land that are	0 0	0 0			0	96		96	95	95 10,150	96	96
Soil erosion, acidity, sodicity & structural decline	eovered by control programs year Application of lime (ha) Minimum tillage (ha)	00	5	40,000		<u>0</u>	000'7-	0000'z	2	000'/0	001	2	0 0
Pest animals	Area of high priority wild dog infested land covered by control programs (ha)	0					28,000	114,000	407	28,000	114,000	407	0
Pest animals	Area of high priority fox infested land covered by control programs (ha)	0			40,000	1	28,000	68,856	246	28,000	108,856	389	53,000
Impact													
Habitat loss - terrestrial	Revegetation - plant natives within or next to remnants (ha) Revegetation - plant natives away from remnants (ha)	54 90	93 17 75 8	71 1,883 33 55	827 42	44 75	255	257	101	2,192 145	1,177 117	<mark>54</mark> 80	981 74
Habitat loss – in-stream	Fish release (nos) Vertical slot fishway (no) Rock ramp fishway (no) Fish barrier removal (no) Establish SEAR (Significantly Enhanced Aquatic Refugia)** (no)		0 3	0 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0	100 33 10	-	-	100	o u o - 0	0 1 4 1 0 1.34 1 0	100 80 20	0 5 17
Habitat loss – wetlands	Reinstate flood regime Construct new wetland (ha)	0	0	0						5 0	0	0	0 0
Habitat loss – Threatened species	Threatened Species Recovery Plan and Action Statements (no projects)	0		11	ω	73	4	വ	125	15	13	87	15
Planning	Whole Farm Plans (no)	153	104	53	42	79	46	39	85	252	185	73	262
 Targets are determined by conside 	ring level of government funds received (as listed in Corporate Plan) and	do not include c	ontributions fr	om other fund	sources. Re	fer to separate	Results Sumr	nary for anal	ysis of progr	ess towards	long-term ta	argets.	

Outputs achieved 2005–06, Goulburn Broken Region

** Broken River improving flows and habitat (a Healthy Waterways initiative / Victorian Water Trust) and Broken Basin Vision (Our Water Our Future) outputs are shown in Mid Goulbum Broken, however some outputs were delivered in Shepparton Irrigation Region.

Delivering across our communities through Implementation Committees

Goulburn Broken on ground Works Sites

July 2001 to June 2006



CAMS Sites

- Pest plant and animal control project areas
- Fencing and revegetation activities
- Plantations, woodlots and pasture established
- Erosion control, gully stabilisation, off stream watering points Salinity control works
- Rivers, wetlands and streams fenced revegetated and stabilised Reuse and Auto Irrigation works

This map shows many of the on ground works directly funded by programs in the Goulburn Broken region. However, many of the funded works programs are not shown and they include the major works programs for surface water management, sub-surface water management, river health works and the Bush Returns program. Other on-ground works that landowners may fund fully themselves are also not included in this map, and the region is looking at a way to capture this important information.

The areas shown for revegetation, fencing and erosion works are not shown to scale. Reuse and automatic irrigation areas are to scale.



Map Produced by Catchment Knowledge & Information Group, July 2006 \circledcirc The State of Victoria Department of Sustainability and Environment 2006

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Goulburn Broken properties covered by a Whole Farm Plan

Map Produced by Catchment Knowledge & Information Group, July 2006 \circledcirc The State of Victoria Department of Sustainability and Environment 2006

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Goulburn Broken Catchment Management Authority

Shepparton Irrigation Region Implementation Committee

The continued successes in delivery of the Shepparton Irrigation Region (SIR) component of the Goulburn Broken Regional catchment Strategy is due to strong:

- Community links through the Implementation Committee (IC) and working groups.
- Partnerships with Landcare, the Goulburn Murray Landcare Network and via Local Area Planning (LAP).
- Partnerships between agencies and the GB CMA.
- Partnerships with local, state and federal governments.
- Technical support network underpinning the SIR Catchment Strategy.
- Integrated approach to tackling natural resource issues and protecting assets.

The IC oversees implementation of the Catchment Strategy in the SIR. The IC plans and delivers an \$18 million annual program funded by the Victorian and Australian Governments via programs such as Water Smart Farms, Our Water Our Future, National Action Plan for Salinity and Water Quality and the Natural Heritage Trust.

Working Groups cover the four program areas overseen by the IC - Farm and Environment; Sub-surface Drainage; Waterways; and Surface Drainage. The groups comprise agency staff and community members including representatives from Goulburn-Murray Water (G-M Water) Water Service Committees, the Victorian Farmers Federation (VFF), local government and environment groups.

These groups manage budget allocation, works programs, monitoring, policy development and research for each of the programs.

They address issues in detail so that the IC can operate effectively and strategically. This process ensures strong input from all stakeholders in the partnership.

The IC is supported by an Executive Support Team that provides executive and technical advice for implementation of the SIR Catchment Strategy. Agency staff also provide technical input through a Technical Support Committee and project teams.

Community Engagement

A Communication Framework was developed and will provide the SIR IC with the means of convincing stakeholders and partners that it is connecting appropriately with all the major political, economic, market and social influences which can impact on the successful implementation of the Regional Catchment Strategy.

Members of the IC and agency partners developed the set of strategies and tactics for achieving the goals of the communication strategy. The tactics now form part of the ongoing efforts to better communicate with stakeholders and the broader community.

Catchment Partners Reporting Day

Building on the success of the inaugural Catchment Partners Day in 2004, the theme for 2005 'Making links between the Environment and Water in the Shepparton Irrigation Region' proved to be very popular. More than 120 people attended the day and heard a range of speakers present information on:

- water quality;
- surface water management;
- protecting natural features;
- improving stream health;
- wetland management and environmental water allocations; and
- protecting natural features with groundwater control.

Research Reporting Day

The annual SIR IC Research Reporting Day promoted projects undertaken at DPI Tatura that are funded either wholly by the GB CMA and/or the Sustainable Irrigation Program of DSE.

The research work presented provided important new knowledge to support sustainable irrigation, land and water management in the SIR and across the State.

Presentations highlighted:

- Use of new spatial data in mapping landscape change;
- Decision-making framework for adopting innovation;
- Understanding behaviour associated with compliance;
- The next phase of the Goulburn Broken Irrigations Futures project; and
- Answering the question does the SIR need a salt balance?

Recognising Achievement

Craig Tuhan of the Girgarre Stanhope Landcare group was announced winner of the 2005 SIR Landcare Award. This annual award rewards a volunteer who has worked tirelessly for Landcare.

Research and Planning

RiverConnect

RiverConnect is a joint project by local catchment partners, local government and the community to highlight the values of the Goulburn and Broken Rivers in Shepparton and Mooroopna and to encourage involvement in works and raise awareness of the values these rivers provide to the local community.

Attitudes to the Broken River – A social survey

A key to implementing river health initiatives is community understanding, support and involvement. To improve our understanding of the community's attitudes this project was initiated to analyse how people in the local region responded to and valued the river.

Bushland Reserve Plan Complete

A Plan has been completed for Congupna Bushland Reserve providing a clear outline of needs and priorities. A draft of the Cantwells' Bushland Reserve, (renamed Millewa Nature Conservation Reserve), has been produced and an updated draft of the Wyuna River Reserve plan is complete. A draft Kanyapella Basin Management Plan has been prepared. As part of the Murray Valley Drain 11 process, a management plan is being prepared for Greens Swamp near Picola.







Goulburn Broken Catchment Management Authority Shepparton Irrigation Region Implementation Committee

Irrigation Drainage Memorandum of Understanding

Implementation of the Memorandum of Understanding for Irrigation Drainage and Water Quality began with the development of operational plans for the proposed Stanhope Depression Drain, and a 'decision support system' trial at Broken Creek and Loddon River based on ecological risk assessment principles. This system will be used to set targets for irrigation drainage water quality and management action in the North Central and Goulburn Broken regions.

High Value Environmental Features for Groundwater

High value environmental features were assessed to determine which were most threatened by groundwater. One hundred and six sites were located, mapped and assessed for habit quality using a modified habitat hectare assessment sheet. Bore data for the sites was also collected using depth to watertable and salinity readings to assess the groundwater threat. The data was then put through an environmental risk assessment to calculate groundwater threats.

Sub-surface Drainage Research

Twenty-three projects were implemented under the Sub-Surface Drainage Program Strategic Research and Investigation Plan. This included the completion of three projects and the commencement of six. The projects address research and development issues associated with the program.

The three completed projects were:

- Development of Technical Guidelines for Implementation of Works and Measures;
- Review of Horticultural Incentives;
- High Value Environmental Features for Groundwater.

The strategic development phase and metering of groundwater pumps for the SIR Groundwater Management Plan is now largely complete.

New Key Performance Indicators

Key Performance Indicators (KPIs) were compiled for the year for the Public Salinity Control Pumping Program and the overall Subsurface Drainage Program. These KPIs provide a standard method for evaluating and reporting important aspects of program performance to funding bodies, statutory and regulatory agencies, and community organisations.



Guidelines for Design of Community Surface Water Management Schemes

A revised version of the Community Surface Drain Guidelines for Design was approved by the Community Surface Drainage Coordinating Committee in 2005. The latest version incorporates many changes to the way construction of the Community Surface Water Management Systems are undertaken.

Prioritising Biodiversity Works

Biodiversity Action Planning (BAP) identifies high value environmental features in a particular area. They are then mapped and habitat quality assessments and bird counts undertaken leading to recommendations for management. In this way works can be focused in the highest priority areas. There are six BAP landscape zones in the SIR with Yarrawonga zone the first plan to be completed. Central Creeks has finished a draft and work has begun on the Barmah Landscape Zone Plan.

Funding was obtained late in the year, to start works in the Central Creeks zone.

Barmah Icon Site Management Plan

The next iteration of the Barmah Icon Site Plan began in conjunction with representatives from DSE. Representatives from the GB CMA continued an involvement in the Coordinating Committee and the Technical Advisory Committee. The SIR IC will co-ordinate community engagement in the development of the plan.





Tradeable Emissions Market

The appropriateness of a cap and trade market to manage phosphorus emissions into the region's rivers was the subject of a research project. A cap and trade market in phosphorus emissions that manages water quality within individual river reaches and meets end of catchment targets for annual phosphorus emissions was developed. The cap and trade market was identified as the only potential mechanism which would achieve the catchment partner's vision to better demonstrate the impact of catchment works, create confidence that targets are being achieved and manage the timing of emissions.

While technically feasible, there are a number of issues that need to be addressed before a phosphorus market can be established including:

- High cost and difficulty of measuring phosphorus;
- Lack of confidence in modelling emissions of phosphorus to replace measurement;
- Priority for establishing a cap and trade market in phosphorus when targets are being met.

Monitoring and Evaluation

Fifty-one separate highlights were recorded on the "Shepparton Irrigation Region Catchment Strategy Monitoring, Evaluation and Reporting Scoreboard". Two of these highlights are described below.

Shepparton Irrigation Region Catchment Strategy Review for period 2001-02 to 2005-06

Following development of the Shepparton Irrigation Region Land and Water Salinity Management Plan (SIRLWSMP) in 1989, each sub-strategy program was reviewed in 1995 and 2000. Sub-strategy programs include Farm, Environment, Surface, Sub-surface and Waterways. The SIRLWSMP has evolved into the Shepparton Irrigation Region Catchment Strategy and it, along with the sub-strategy programs, is undergoing the third five-year review (2001-06). This review is being coordinated by a steering committee comprising the GB CMA, DPI, DSE, G-MW and local Government.

River Health Monitoring

A range of monitoring programs were undertaken - from snapshot monitoring - through to detailed river assessments. Examples include:

- Monitoring the movement of native fish following completion of Fishways on the Broken River;
- Monitoring the recruitment and movement of native fish in the lower Broken Creek;
- Establishment of benchmark surveys to assess changes to flora, fauna, water quality and channel morphology following changes to flow regimes in the Broken and Boosey Creeks; and
- Application of the Index of Stream Condition.

Shepparton Irrigation Region Implementation Committee



CASE STUDY Wetland Works

An Environmental Water Allocation was delivered for Bray's Swamp near Merrigum and monitoring was undertaken for in-flows into Shepparton's Reedy Swamp following good rains.

Between 4,000 and 6,000 Sacred and Straw-necked Ibis nested at Reedy Swamp following the rains. Other species recorded were Royal Spoonbills with breeding plumage, Great Egrets, Australasian Shovellers, Bluebilled Ducks, Freckled Ducks, Cormorants and Darters.

Swans, Black Ducks and Little Pied Cormorants, were recorded breeding at Bray's and Pink-eared Ducks and Australasian Shovellers were also sighted.

The success of the Environmental Water Allocation to Bray's Swamp is the result of a surface water management scheme that allows water to be diverted into the Swamp. Many wetlands in the region have been disconnected from river flooding due to development and surface water management schemes provide a mechanism for flooding.

CASE STUDY Bringing back the Broken

Underpinned by the Victorian River Health Strategy, the Our Water Our Future Initiative and the Goulburn Broken River Health Strategy, this multi-partner project is a strategic and integrated approach to river restoration works.

The \$2.8 million program now into its second year has improved flows, erosion control, re-snagging and the revegetation of the river corridor and seen the installation of a fishway at Casey's Weir. Research shows the fishway is assisting native fish species such as Murray Cod and Golden Perch to move upstream to feed and breed.

The river's improvement program began with extensive research to identify the major threats to its wellbeing such as erosion, stock access, un-natural flow regimes, loss of habitat, artificial obstructions and weeds.

Priorities for the works program were based on the levels of threat. A number of GB CMA programs offer incentives for landholders to carry out work along the river frontage, including alternative stock-watering, fencing, irrigation re-use and revegetation. About 80 per cent of landholders have expressed interest in helping improve the river's condition.

Local government has also been heavily involved in the program, particularly by improving the quality of urban stormwater entering the river. The City of Greater Shepparton and the Rural City of Benalla have installed several gross pollutant traps which prevent tonnes of litter reaching the river each month.

A number of community groups are also involved, particularly in monitoring, revegetation and weed control. An extensive monitoring program, which checks the river for salinity, nutrients, turbidity, temperature and a range of other environmental indicators, confirms the

> water quality and biodiversity is responding well to the Broken River work.

Success of this project has been enabled through support from project partners, G-M Water, DSE, DPI and the local community.

The Broken River program is outlined on the GB CMA website www.gbcma.vic.gov.au/ thebrokenriver



CASE STUDY Azolla management

Fish deaths in the Broken Creek near Numurkah in 2002 were attributed to a build up of Azolla (or duckweed) in a weir pool. Decomposing Azolla removes oxygen from the water and can cause chemicals noxious to fish to be released.

Reducing the build up of Azolla in the creek and increasing levels of dissolved oxygen in the water have become management priorities for the creek.

Azolla started blooming in the creek in July 2005, and continued until November 2005. It began growing again in March-April 2006.

Flows in the creek were managed to move the Azolla along and out of the creek. A minimum flow of 50 to 100 ML/day was used throughout most of the irrigation season. This was found to draw the Azolla along the creek and through the weirs under most conditions.

However, under ideal climatic conditions, Azolla can grow very quickly (it can double its mass in four days). When this occurs, the 50 to 100 ML/day does not clear the Azolla quickly enough. In 2005, two flow pulses of 300 to 500 ML/day were used to clear build-ups of the weed.

Goulburn-Murray Water manages creek flows and irrigation demand to provide the required flows during the season. It also manipulated weirs to provide short flow pulses to clear minor local build-ups.

Flows were from the Murray River via the Murray Valley channels and from the Goulburn River via the east

Goulburn Main Channel by redirecting some water being sent down to the lower Murray River. Surplus flows in the Goulburn River were also used, along with surplus Broken River flows diverted via the upper Broken Creek. Goulburn-Murray Water also called on the Goulburn water quality entitlement to provide one of the two flow pulses.

Despite these efforts, two significant build-ups did occur. The first was caused by a log across the creek acting as a barrier to the floating Azolla. The other was caused by a willow tree and branches acting as a barrier. The GB CMA waterways team removed the blockages and the Azolla cleared within 24 hours.

CASE STUDY Flood brings new life to Barmah

The largest release of water for the environment in Australia's history – around 510 GL – was sent down the Murray River in spring 2005 creating a breeding frenzy in the Ramsar-listed Barmah-Millewa Wetlands.

The Barmah-Millewa Wetlands is a 28,500 ha River Red Gum dominated floodplain between Tocumwal and Echuca. It is listed as a wetland of international importance under the Ramsar Convention on Wetlands.

Although at least 95 per cent of the water returned to the river for use downstream, wonderful results were achieved including:

- The re-establishment of a significant Egret colony for the first time in 40 years;
- Over 55% of the wetland system was inundated;
- Excellent native (and unfortunately exotic) fish breeding;
- Good frog breeding response; and
- Profuse flowering in Moira Grass plains and associated wetland community.

The results of the impact have been assessed through a variety of monitoring programs, including regular joint DSE and GB CMA aerial inspections of colonial-nesting waterbird activity and through active ground-truthing surveys.



Mid Goulburn Broken Implementation Committee

The Mid Goulburn Broken Implementation Committee (IC) is pivotal in implementing the sub-strategies of the Regional Catchment Strategy. The Implementation Committee oversees natural resource management works exceeding \$5 million through the following key programs:

- Tackling Pests;
- Biodiversity;
- Catchment Planning;
- Salinity and Soils; and
- River Health and Water Quality.

Works

Sales of fox baits were very high with more than 10,500 "1080" baits sold covering over 40,000 ha. A Rabbit compliance program began around Highlands involving 50 landholders focusing on ripping and harbour removal.

Seven landholders participated in the Bush Returns project resulting in 279 ha set aside for natural regeneration. A further 695 ha was permanently protected under Trust For Nature Covenants. A pilot project saw all real estate agents in the Mid Goulburn Broken provided with a comprehensive manual detailing issues dealing with the buying and selling of environmentally significant properties.

Salinity and Soils

One hundred and sixty five Whole Farm Plans were developed to level One. It is compulsory for landholders to undertake a level One Whole Farm Plan before a grant can be offered. There was a high level of uptake of incentives for lucerne pasture on recharge sites with over 1533 ha planted –767% of original the target. Fencing occurred for more than 305 ha of indigenous vegetation.

River Health and Water Quality

In the Broken Basin123 landholders were contacted to undertake works on waterways with riparian assessments carried out on most of their properties.

Sixty-nine kilometres of Mid Goulburn Broken stream were fenced to protect the riparian zone and native vegetation. Off stream watering points were installed at 40 locations.

A total of 4.9 km of stream bed was stabilised with further stabilisation works occurring along 3.97 km of bank.

A further 15 ha of land was treated for soil erosion through engineering works or fencing.



Planning

A comprehensive review was undertaken in the past 12 months of the delivery of grants to landholders and Landcare support in the Mid Goulburn Broken region.

Currently CMA Waterway Vegetation Officers deliver waterway grants and DPI delivers Environmental Management Incentives with Landcare Facilitators supporting Landcare. However this system is considered too complex and complicated for landholders.

A more "client focused" approach is proposed to make it easier for landholders to access grants. The new approach will see the region split into areas with a Catchment Management Officer in each delivering waterways grants and Environmental Management Incentives and supporting Landcare groups that operate in that area. The Catchment Management Officer would become the key contact for landholders and the Landcare groups in each area.

The concept will be trialled and monitored across one third of the Mid Goulburn Broken area in 2007 and, if successful, will be progressively rolled out across other dryland areas in the catchment.

The IC had intensive input into a Landscape Strategy for the dryland areas of the Goulburn Broken catchment. The project was initiated to;

- Consider the appropriateness of long-term targets and the ability of current activities to achieve them;
- Review the strategic approach to salinity management;
- Identify efficiencies and opportunities for closer coordination of programs;
- Identify "trade-offs" such as the impacts of revegetation on water yield;
- Consider the future of funding and possible alternative sources;
- Improve adaptive management processes and better integrate monitoring, evaluation and reporting.

Leadership and Engaging Communities

This year has seen a major injection of funds focusing on works on the Broken River. This funding has emanated from the State Government's Our Water Our Future initiative. GB CMA Waterway Vegetation Officers have been contacting landholders along the Broken River in the Mid Goulburn Broken area encouraging the uptake of grants to fence off the river, plant native vegetation and install off-stream watering points.



In considering the future landscape and the health of the environment in the Mid Goulburn Broken area, the IC has been involved in a wide array of community consultation in the past year. Examples include:

- Staging a soil health workshop in December 2005, with over 60 participants to discuss the evolution of an action plan for the Goulburn Broken Soil Health Strategy. As a result a Goulburn Broken Soil Health Steering Committee was formed and will have a refined set of actions to present to the GB CMA Board and the community later in 2006.
- The Mid Goulburn is overseeing community engagement for the future land use of the area occupied by Lake Mokoan. The lake will be decommissioned as part of Our Water Our Future water savings initiatives. Chair of the Mid Goulburn Broken IC Sally Simson chairs the Lake Mokoan Future Land Use Steering Committee. This committee has community and agency representation and was appointed by the Minister for the Environment to develop community endorsed options for the 8,000 ha site of the lake. The Lake Mokoan Future Land Use Steering Committee has met 15 times and held six community information sessions for more than 350 people. The final option will be presented to the Minister in late 2006.

The appointment of a Community Programs Coordinator assisted community engagement in the region. Activities included:

- Quarterly Woodlands and Wildlife newsletter sharing information on Implementation committee initiatives and programs with partner organisations and the wider community.
- The Heartlands newsletter produced twice yearly to update 572 landholders in the Honeysuckle Creek Catchment on Heartlands initiatives. Heartlands integrates current CSIRO findings with environmental works.

- Land Management
 Directories were
 produced for the
 Benalla Rural City and
 Strathbogie Shires to
 inform landholders
 of natural resource
 management
 services in their
 area and provide
 contacts for relevant
 agencies.
- The Implementation Committee provided Community Education Grants to Landcare and other voluntary organisations providing small sums to assist in natural resource management and education activities.





- Involving Landcare groups in a review of the Implementation Committee's Priorities Document that guides prioritising of funding applications.
- Staging of the annual Mid Goulburn Broken Landcare award. The 2005 winner was Debbie Hill of the Warrenbayne Boho Landcare group. This group is one of the longest established Landcare groups in Australia and the IC will celebrate 20 years of Landcare later in 2006.

Mid Goulburn Broken Implementation Committee



CASE STUDY Carpet Python Project

The Warby Ranges Landcare group, DPI Benalla and Goulburn Broken CMA joined forces to initiate the Carpet Python Project 2005.

The project began in response to mapping by the DSE, which identified the Chesney region as a 'hotspot' for local biodiversity.

The Inland Carpet Python (Morelia spilota metcalfei) classified as Endangered in Victoria (NRE 2000) is a familiar resident of the Chesney hills and surrounds, and one of only two species of Python in Victoria.

The emphasis of the project is to protect remnant vegetation of more than one hectare, and to link patches of remnant with corridors of 20 metres wide or greater. Funding is available to landholders through DPI for these activities.

Janice Mentiplay-Smith, Revegetation Links Officer for the Chesney region visited many interested landholders for site assessments and to hear about 'Carpet Python experiences'.

In September 2005, 140 people went to a field day "Flower Carpets & Carpet Pythons" in the heart of Carpet Python country.

Farmers identified foxes as the major predator of the Carpet Python. The Broken Boosey Conservation Management Network funded a two-day Chemical Users Certificate Course with 25 local people attending and gaining their Australian Chemical Users Permit (ACUP), the requirement needed to purchase Fox-Off®.

All those who completed the course received free baits in February 2006, ensuring baiting occurred at the same time at a landscape-wide level. Twentynine farmers participated in the fox baiting program across 43,000 ha. Surveys showed the fox population in the area fell by 66 per cent as a result.

CASE STUDY Balanced Productive Soils Project - A Community Approach to a Sustainable Farming Issue

This project was driven by a community in need of information and recognition to raise the profile of soil health in their region. The networking of 14 Landcare groups culminated in a project submission being funded through the National Landcare Program. The groups identified the need for farmers to monitor and evaluate their soils through testing and identification of requirements for balance soils rather than the more traditional application of inputs at a standard rate.

The project aimed to confirm and demonstrate the necessary and critical balances of soil nutrients and biota needed to produce sustainable, healthy and productive pastures and environments by:

- Creating the awareness and significance of acidic and other imbalanced agricultural soils and the chemical imbalances involved.
- Demonstrating the wide variations and health of a large area of the Mid Goulburn Broken region.
- Creating awareness of the need for important soil nutrients to be available in the correct balance for healthy and sustainable plant production.
- Demonstrating the step-by-step processes required by landholders to correct the deficiencies involved, including aeration and grazing management.

The project has involved more than 300 landowners across the Mid Goulburn Broken with soil testing, field days and information sessions. The landowners involved have ranged from productive farm operations, lifestyle farmers, pastoralists and people just generally interested in getting to know their soils. The project has mapped soil health across the catchment and aims to give a snapshot of the range of important elements required for a balanced productive soil.



CASE STUDY The Rakali Project

The Rakali or native water rat, is the icon species used to help engage the residents of Benalla in stewardship of the local urban environment.

The Broken River flows through the centre of Benalla, and the pondage contributes significantly to the identity of Benalla. Benalla residents drive over, walk and cycle around, swim in, row on and gaze upon the river. The Rakali Project aimed to raise awareness of residents to also look after it.

Activities have included workshops on sustainable gardening, urban wetland walks, and evening spotlighting. Afternoon tea sessions are held for a registered interest group of local residents. Guest speakers are invited to present information in an informal setting.

Local school children are investigating the habitat offered by the lake for native flora and fauna.

Plans to link a neighbouring Landcare group with the urban-based Rakali Project are in place. The plans are to present the idea that members of both groups hold a common interest. They share the desire to maintain and improve the health of the Broken River.

Upper Goulburn Broken Implementation Committee

The Upper Goulburn Implementation Committee (UGIC) is responsible for the roll-out of the GB CMA's Regional Catchment Strategy, the blueprint for the future environment of the Goulburn Broken catchment, in the Shires of Mansfield, Murrindindi, and Mitchell.

Environmental Management Incentives and Whole Farm Planning

Whole Farm Planning

Whole Farm Planning (WFP) courses have been run successfully for participants in Kilmore and Yea. Both courses have involved large and small landholders, lifestyle farmers, conventional traditional farmers and landholders looking to explore alternative farming opportunities. The Kilmore and Yea course had 12 and 14 participants respectively with two thirds of each group completing their accreditations. Topics delivered at the course include land classing, soils management, fire awareness and prevention, drought management, farm water supply, biodiversity and native vegetation management, pest plants and animals, pasture and grazing management.

Environmental Management Incentives

Devolved grants for delivering on ground works have been undertaken in their present format for the last four years resulting in direct protection works for 600 ha of remnant vegetation and revegetation works of nearly one thousand hectares. Other works contributing to catchment improvement through revegetation include erosion stabilisation and plantations for greenhouse emission reduction. The Paddock Tree Project also provided an opportunity for landholders to learn about the productive and ecological benefits of paddock trees within our landscape. There were two field days covering topics on the importance of paddock trees from farm productivity, invertebrates to bats. The paddock tree package was launched consisting of informational material on the benefits of paddock trees in both productive and ecological landscapes, and practical information on methods for their protection and restoration.

Planting Programs

The South West Goulburn has been hosting successful planting days over winter 2005 and 2006, involving important partnerships between Landcare, Rotary and

Department of Primary Industries (DPI), with financial assistance through Environmental Management Incentives by GB CMA. Planting sites target salinity to help meet outputs set by the Goulburn Broken Regional Catchment Strategy and components of the Dryland Salinity Management Plan. Planting sites also target biodiversity and water quality priorities within the area.

Planting was held in the Hughes Creek, Glenaroua and Dabyminga sub-catchments, as these areas contribute high salt loads into the Goulburn River. In the Glenaroua sub catchment over 6,000 indigenous trees and shrubs were planted in 2005 with another 7,000 planted in 2006. In the Dabyminga sub catchment 1,000 indigenous trees and shrubs were planted in 2005 with 3,000 trees planted in 2006. Hughes Creek Catchment Collaborative and Scouts Australia planted 39,000 trees and shrubs with the assistance of Greenfleet and GB CMA as part of the Murray Challenge.

Planning

In line with the Corporate Plan 2005-2006 – 2009-2010, the Implementation Committee is engaging with the local community to translate the Regional Catchment Strategy into locally meaningful strategies reflecting community priorities for achieving integrated multiple benefits in salinity, water quality, biodiversity and sustainable land use. The Upper Goulburn catchment has been divided into three geographic areas (subcatchments) and three natural resources functional issues. Portfolios have been established to deal with each.

The primary focus of the sub-catchment portfolio is to engage the community in the work of UGIC and to act as a conduit between local government / community and UGIC. This involves regular liaison and attendance on behalf of UGIC at public occasions. The primary focus of the functional portfolio is to liaise with technical expertise in partner agencies and the wider community to ensure that issues and data of relevance to subcatchment portfolios are presented in a timely and meaningful manner.

Portfolios are allocated and revised annually in conjunction with the review of the UGIC Charter and Committee performance. Portfolio operations are also seen as a key component of UGIC member development. The structure involves six portfolios:

 Three geographic/sub-catchment areas to facilitate the integration of NRM with statutory land use planning, by closely relating to the shires of Mitchell, Murrindindi, and Mansfield.

- Three functional streams, on the basis of:
 - Biodiversity biodiversity and pest plants and animals;
 - o Water river health and water issues;
 - o Land land health [soils and salinity] with sustainable production.

Leadership and Engaging Communities

Lesley Dalziel was awarded the Hubert Miller Perpetual Trophy for her years of work to highlight environmental issues in the Seymour area and the leading role she played on the steering committee for the Light Horse Park project. The Upper Goulburn Landcare Award for Excellence was presented to Roger Cook of Kinglake Landcare group. Roger Cook was nominated for his commitment to natural resource management in the Kinglake area and his ability to instil environmental values in young people.

Strengthening Partnerships

Meetings between the Implementation Committee and local government have been an opportunity to raise issue of common interest and to educate the representative community of the GB CMA's role and responsibilities. UGIC has supported municipal projects with roadside management and wetland planning, environmental committees and new landholder kits on natural resource management. In particular with Murrindindi Shire, the GB CMA has supported CSIRO research into offsets for development. In Mitchell Shire the south west Goulburn community has undertaken a sub catchment risk assessment and is also grappling with the issue of offsets. In this case high levels of revegetation through farm forestry or other means could have a positive effect on salinity discharges from the area, but may also have a negative impact on the water yield of the catchment for urban and rural water use.

The UGIC has provided ongoing support to local governments for Wallaby Creek management near Kinglake, the UT Creek Enhancement Plan in Alexandra, Fords Creek rehabilitation in Mansfield, and Yea Wetlands development near Yea. The Implementation Committee has also supported community weed actions through rural extension programs involving a number of partners such as the Good Neighbour program and Landcare.



Upper Goulburn Broken Implementation Committee



Monitoring and Evaluation

Habitat works on the Rubicon River involved the construction and installation of 109 Lunkers. These structures provide protection for fish by creating a false underbank environment where they can retreat in times of stress and when resting. Removal of woody weeds and introduced vegetation species has created improved access for fishermen and other recreational river users. Funding for the project was provided with income from Recreational Fishing Licences.

These types of projects are being assessed for their contribution to river health as part of monitoring programs in the Upper Goulburn. Index of Stream Condition was applied to a number of sites (representative stream reaches) in the Upper Goulburn region by applying components of the Channel Form and Riparian Zone sub-indices from the Index of Stream Condition. The project enables an assessment of the success of protection and enhancement initiatives. A number of sites have been assessed for indigenous heritage as part of the waterway program. This process identifies heritage sites and indigenous values. Overall 30 riparian protection sites were assessed, in 2005, by applying components from the Index of Stream Condition, Vegetation Quality Assessment and Habitat Hectares methods. These sites are also being evaluated to quantify progress toward Resource Condition Targets.

A survey of Macquarie Perch was conducted in the Upper Goulburn catchment over April by Dr Janet Pritchard from DSE using fyke nets, bait-traps and backpack electro-fishing to determine fish numbers. Streams surveyed include King Parrot Creek and Yea River, Hughes Creek and Sugarloaf Creek in the Upper Goulburn catchment. Sightings of Macquarie Perch in Hughes Creek are a good indicator of stream health



and water quality with good prospects for other native fish in the area. Macquarie Perch populations were also found in King Parrot Creek and Yea River with perch up to 1.2kg recorded. Water rats, platypus, and other native fish were also recorded. The healthy populations were attributed to willow removal and revegetation works undertaken by the GB CMA and landholders that protect and enhance the aquatic habitat.

CASE STUDY Upper Goulburn - Restoring Riparian Areas

A concentrated program of woody weed management on upper Goulburn waterways has resulted in the successful revegetation of banks where introduced species have been removed.

Willow management is a priority program for maintenance of water health on all upper Goulburn rivers and streams and contributes to habitat improvement for native animals and fish.

The weed management and revegetation program has been in progress throughout the catchment on upper Goulburn tributaries including the Jamieson, Howqua and Delatite Rivers and the King Parrot Creek. This has been an opportunity to link sites with landholders support and restore native vegetation corridors. Restoring native species of trees, grasses and groundcovers will improve wildlife corridors and return the rivers back to life.

Exceptional works have been carried out to remove weeds and revegetate the stream banks along the King Parrot Creek through the restoring Riparian Corridors project. The King Parrot Creek has been subject to a Stream Flow Management Plan in the last two years with a subsequent program of weed management from Hazeldene to Strath Creek.

Work has been complemented by a high level of support from local landowners and the Strath Creek Landcare group, which has run weed control and revegetation project for more than two years.

CASE STUDY Bush Returns under new program

Fifteen landholders this year signed contracts with the GB CMA under the second round of the Bush Returns Program.

Bush Returns is a landscape restoration trial funded through NAP. The development of the program has been funded through two consecutive years of NAP funding. The trial tested a new incentive mechanism for achieving large-scale increases in native vegetation on private land.

It is widely acknowledged, including in the Goulburn Broken RCS, that significant landscape change is required to tackle multiple NRM issues and resource condition targets. Increasing the extent and condition of native vegetation has benefits for addressing salinity, biodiversity decline, soil and water health and the increasingly important issue of greenhouse. However, tree planting and direct seeding (and associated fencing) can be labour intensive and expensive, especially when implemented at a landscape scale. Recent research has shown that there is much potential to increase native vegetation cover through natural regeneration. Much of this potential however, is currently suppressed through incompatible grazing systems and competition from weeds, including introduced pastures.

While the occurrence of natural regeneration sometimes depends on favourable climatic conditions, it is potentially a very cost-effective approach to achieve increases in native vegetation. In some cases regeneration can occur 'by accident', in others it can be facilitated with appropriate management Bush Returns provides the incentive for landholders to promote and protect areas of natural regeneration by introducing stewardship payments that are tied to management actions at a paddock-plus scale. Typical agreements with landholders include grazing management, weed control, soil disturbance and fire. Restrictions on land use also apply.

As there is a degree of risk associated with investing in natural regeneration, Bush Returns has a research and monitoring program in place to better understand natural regeneration processes and factors affecting the success of recruitment and survival of plants. This work will lead to adaptive management of Bush Returns sites, better selection of future sites and a more informed platform for developing management strategies.

One of the new approaches trialled in Bush Returns was the use of a tendering process, similar to BushTender. Landholders nominated their price to manage their site through a bidding system. A Restoration Benefits Index was developed and used to assess value for money and this reflected the sites' conservation significance and regeneration potential, management services and cost (revealed by landholder). Over half of the landholders who submitted bids were successful and 88% of these signed contracts.

Successful landholders have entered into management agreements with the Goulburn Broken Catchment Management Authority. In total 502 ha is covered by second round agreements. Most (73%) agreements are being entered on the property titles for 10 years under Section 69 of the Conservation Forests and Lands Act 1987 (in partnership with DSE), or in perpetuity as Trust for Nature Conservation Covenants (27%).

One of the attractive aspects of Bush Returns is that successful landholders can receive annual payments in return for actively managing an area over time. Annual reporting on outcomes and compliance with management plans is required of all participants.

Upper Goulburn Broken Implementation Committee

CASE STUDY Investing in youth

Murrindindi Schools Cluster has joined with the Upper Goulburn Implementation Committee and Upper Goulburn Landcare in the Healthy Catchment Communities project in the Working Towards a Sustainable Future program.

The program aims to build strong sustainable partnerships between the cluster schools, local teacher associates and the community. Participants for 2006 include Yea Primary, Highland Primary, Yea High, Flowerdale Primary, Middle Kinglake Primary, Kinglake West Primary, the CMA, Waterwatch, Landcare and The University of Melbourne. The program involves grades three to eight teachers in developing and delivering theme-based curriculum linked lesson resources with appropriate technical support. The students have had the unique opportunity to gain an inherent appreciation of their local ecological systems and how they can support them for future generations. They have undertaken real-life investigations and participatory learning experiences such as field excursions, community projects and classroom activities. They have then presented their findings to their peers, other teachers, the partners and the community.

The program aims to develop knowledge over the five years of the program: Grades three and four study wetland aquatic ecosystems, Grade five investigate flowing aquatic ecosystems, Grade six study linkages between freshwater and land fauna, Grade seven study terrestrial habitats while Grade eight will contribute to the environment by recreating habitat for threatened species. The DSE Regional Threatened Species Coordinator, Regional Landcare Coordinator and upper Goulburn Landcare facilitators have provided ongoing technical support to the program.



Goulburn Broken Catchment Management Authority Results details for major strategic areas

This section provides details of the ratings given in the Results Summary (see page 8).

To understand progress and make decisions, the GB CMA Board, implementation committee members and government and non-government investors, need to know, for each of the major strategic areas (listed in the table below):

- investment and expenditure levels;
- works or changes made on ground for the year against those that were proposed eg area remnant fenced, volume of groundwater pumped;
- supporting (non-works) actions undertaken that were proposed for the year and for the long-term eg review of planned tasks in implementing relevant strategy; establishment of a technical reference group; and,
- progress against long-term targets (usually expressed as Resource Condition Targets eg "Improve the quality of 90% of existing (2000) native vegetation by 10% by 2030").

Short-term (annual) and long-term progress have been rated, with clear references to evidence (including an indication of rating certainty).

Asset	Major strategic area
Environment	
1 Land	1A Land salinisation and waterlogging in the SIR 1B Land salinisation in the Dryland
2 Water	2A Murray River salinity from the SIR*2B Murray River salinity from the Dryland2C Environmental flows2D Riparian and instream habitat and channel form2E Water quality (nutrients)
3 Biodiversity 4 Air	3A Native vegetation 4A Climate change
Economic	
5 Built 6 Financial	5A Flood protection6A Generating and managing revenue from government and regional community
Social	
7 People	7A Staff 7B Communities and Leadership

* Actions to manage salinity have complementary water use efficiency benefits. Reporting on these benefits will be explicit in the 2006–07 Annual Report.

Commentary and analysis have also been

provided on threatened species and pest plants and animals, which are also of considerable importance to the GB CMA.

Changing data into information

The GB CMA has made a huge step forward in sorting the masses of data that arrive every day. Shared decision making can only be improved if there are clearly understood reference points. This means that data must be prepared with a clear sense of hierarchy, and the number of issues presented at any one level within that hierarchy restricted to a number that the human brain is able to sort – about seven.

The GB CMA has over 30 Resource Condition Targets (RCTs) which define the desired condition of our Catchment's biophysical assets and major threats.

However, to date these have been framed with widely varying rigour and have widely varying priorities.

So, to develop a hierarchy, these RCTs have been grouped and the number of these groupings has been restricted. The RCTs generally fit underneath the GB CMA's "major strategic area". (These can also be aligned against the asset and "matters for target" listed in ANZECC's "National Standards and Targets Framework" (2002).)

Narration: More than 7 (items) and our brains have to work much harder – grouping the options, making a sequence of decisions.

Professor Paul Rozin: The cost of exceeding the magic number is that you have to do more processing segmentation, take more time. It can drive you crazy.

Professor Barry Schwartz: It shuts down the brain, it produces paralysis. People freeze.

- extract from ABC TV's program "Catalyst": a story on "Choice" 13 April 2006

Goulburn Broken Catchment Management Authority Results details for major strategic areas

Major strategic areas: 1A, 2A Salinity in the Shepparton Irrigation Region

Report compiled by:

Ken Sampson, Terry Batey, Peter Howard, Rod McLennan

Strategic references:

Shepparton Irrigation Region Land and Water Salinity Management Plan 1990 (SIRLWSMP) (Victorian) Government Response 1990 SIRLWSMP Strategic Review 1995 SIRLWSMP Strategic Review 2000 Shepparton Irrigation Region Regional Catchment Strategy 2000-05 (yet to be published) (Murray-Darling) Basin Salinity Management Strategy 2001-2015

Resource Condition Targets (RCTs)

Managing salt within the SIR landscape and discharges of salt to waterways are high priorities in achieving our contribution to objectives of the Murray-Darling Basin's "Basin Salinity Management Strategy 2001-2015", which include Murray River salinity, end-of-valley targets for tributaries, and within-valley targets for terrestrial ecosystems, farmland, cultural heritage and built infrastructure.

RCTs that have been set are:

- 1.4 Keep groundwater below 2m and remove saline water by consistently pumping groundwater over 216,000 ha of land.
- 8.1 Reduce increases to salinity levels of the Murray River at Morgan from the Shepparton Irrigation Region to 17.0 ECs or less by 2020.

Actions to manage salinity have complementary wateruse efficiency benefits. Reporting on these benefits will be explicit in the 2006-07 Annual Report.

Achievement against 2005-06 funded targets

Works achieved in 2005-06

Investment and actions*		Fro	m funds re Regiona	eceived th al Manage	rough GB ement Plar	CMA's 1
			Achieved		Target	%
						achieved
		2003-04	2004-05		2005-06	
Government investment*	\$,000	14,061	13,354	12,837	n.a.	n.a.
Surface water action						
A Land forming/laser grading	ha	9,000	7,700	7,700	7,700	100
B Drain – primary built	km	12	8	11**	8	138
C Drain – community built	km	19.5	0	6	12	53
D Farm reuse systems installed	no.	78	65	70	55	127
E Drain – additional water diverted from regional drains	ML	320	1,350	235	570	41
F Irrigation systems – improved***	ha	10,000	8,200	8,200	8,200	100
Sub-surface water action						
H New groundwater pumps – public installed	no.	3	3	3	2	150
I New groundwater pumps – private installed	no.	19	10	11	10	110
J Increased volume of water able to be pumped	ML	to be det	1,071	1,800	1,400	129
Planning for works action						
K Whole farm plans	ha	363	262	104	153	68

* Many actions primarily aimed at achieving salinity targets contribute to other targets also, such as those for water quality and biodiversity. Investment shown is for those funds dedicated primarily to achieving salinity outcomes.

* 11 km were constructed during 2005-06 but 0 km was formally "handed over" to Goulburn-Murray Water for it to manage.

** Improved systems include laser grading, automatic irrigation and micro-irrigation.

- There was increased uptake of drainage reuse and automatic irrigation incentives following two years of adverse climatic conditions and associated financial positions of landowners.
- There was no groundwater pumping to dispose of salt during winter and spring (under the Murray-Darling Basin Salinity and Drainage Strategy) due to low flows in the Murray River.
- 8 of 41 pasture Farm Exploratory Drilling Scheme investigations on properties were successful in finding water of pumpable volume and quality with another 18 having potential to be public pump sites. Demand for horticultural investigations remained low and none were completed.

Supporting (non-works) actions achieved in 2005-06

- The Sub-Surface Drainage Program Review commenced and is 60% complete.
- Guidelines for designing community surface drains were revised.
- A major review of the assumptions relating to our accountable actions under the Murray-Darling Basin Salinity Management Strategy is nearly complete. It has confirmed the assumptions in the original Strategy.

Achievement since Strategy start (1990)

Progress towards Resource Condition Targets

- Implementation of the Memorandum of Understanding for Irrigation Drainage and Water Quality (IDMOU) included operational plans for the proposed Stanhope Depression Drain and a 'decision support system' trial at Broken Creek and Loddon River (based on ecological risk assessment principles). This system will enable targets for irrigation drainage water quality to be set in the North Central and Goulburn Broken CMA regions.
- Environmental assessments were completed for 2 public salinity control pumps, 3 surface water management projects that needed to conform to requirements of the Commonwealth Environmental Protection and Biodiversity Conservation Act, and 26 alignments of surface water management projects. Environmental assessment guidelines were aligned with Victoria's Native Vegetation Management Framework.
- Commenced Strategy Review in 2005-06.



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Goulburn Broken Catchment Management Authority Results details for major strategic areas

- Several actions to combat salinisation and waterlogging (RCT 1.4) have a negative impact on river salinity (RCT 8.1). However, the actions need to be completed as a package simultaneously and the net result is positive progress towards RCTs.
- 1982 saw the first release of a series of maps and graphs of regional watertable depth for the Shepparton Irrigation Region. These maps show depth to the watertable from ground surface. Where the watertable is less than 2 metres depth (red and orange areas) the land is at a much higher risk of salinisation. In the event of doing nothing to combat rising watertables, 65% of the region was expected to have a watertable at less than 2 metres depth by 2020.
- The rise and extent of watertables across the region was rapid between 1990 and 1995. From 1996, dry seasonal conditions and the associated limited surface water allocations played a role in lowering watertable depth. Catchment works are having a significant impact on keeping watertables down.
- Analysis of groundwater levels and rainfall data show that watertables have responded to above average winter rainfall in 2005, increasing areas subjected to high groundwater levels.

Progressive uptake of salt disposal entitlements (SDEs) in the SIR to June 2006*

Activity		Uptake of Salt Disp	osal Entitlements (EC	2)
	Pre-1991	Total to 2004-05	Uptake in 2005-06	Total to 2005-06
Primary Drains	0.055	0.444	0.000	0.444
Community Surface Drains	0.008	0.097	0.001	0.098
Public Groundwater Pumps		1.494	0.028	1.522
Private Groundwater Pumps		1.279	0.142	1.421
Horticultural Sub-surface Drainage	0.030	0.156	0.000	0.156
Total	0.093	3.470	0.171	3.641

*Includes pre-1991 impacts

Note: There was no disposal opportunity for private or public groundwater pumps during the 2005 winter-spring period. Therefore, of the potential 2.929 EC disposal from groundwater pumps, none occurred from private pumps and virtually none from public pumps. In addition, very little disposal from horticultural systems occurred, and drain flows to the Murray River continued to remain low.



Shepparton Irrigation Region August Depth to Watertable Areas 1982 - 2005

Supporting (non-works) achieved since Strategy start

- Whole farm plans completed through incentives now cover 213,000 ha (67% of SIR).
- Major review of Sub-surface Program in 2001-02 (related to Outputs H, I and J above) confirm original strategy.
- Major review of Surface Program in 2001-02 (related to Outputs B, C, D and E above) confirm original strategy.
- Major review of Farm Program in 2001-02 (related to Outputs A and D) confirm original strategy.
- Mechanisms have been well developed to cope with additional investment should it become available.

Major strategic areas 1B, 2B: Salinity in the Goulburn Broken Dryland

Report compiled by: Mark Cotter, Rod McLennan

Strategic references:

Goulburn Broken Dryland Salinity Management Plan 1995-2001 Review (Draft)

Goulburn Broken Dryland Salinity Management Plan (Draft) 1989

South West Goulburn: Tree Cover for Salinity Management – final report September 2004 (SKM)

Predicted Streamflow and Salinity Changes after Afforestation in the South West Goulburn 2004 (CSIRO Land and Water)

(Murray-Darling) Basin Salinity Management Strategy 2001-2015

Resource Condition Targets (RCTs)

Management of salt within the Goulburn Broken dryland landscape and discharges of salt to waterways are important when considering the objectives of Murray-Darling Basin Commission's "Basin Salinity Management Strategy 2001-2015", which include Murray River salinity, end-of-valley targets for tributaries, and within-valley targets for terrestrial ecosystems, farmland, cultural heritage and built infrastructure. An RCT for Murray River salinity was set in 2000 in the background papers for the Strategy.

An RCT for land salinisation was developed in 2002. The form of both RCTs has changed since they were originally written, but their intent remains the same. They now read:

- 1.1 Save 1,500 ha of foothills and river valleys of highland areas from salinisation by 2050.
- 8.3 Maintain increases to salinity levels of the Murray River at Morgan from the Goulburn Broken Dryland at or below 1.3 ECs by 2050.

Achievement against 2005-06 funded targets

Works achieved against funded targets in 2005-06

• Most works targets planned for were achieved, with a dramatic increase in uptake of pasture plantings.

Investment and actions**		From funds received through GB CMA's Regional Management Plan						
			Achieved	•	Target	%		
						achieved		
		2003-04	2004-05		2005-06			
Government investment*	\$,000	\$2,098	\$2,829	\$1,803	n.a.	n.a.		
Surface water action								
A Discharge – saline pasture woody perennial eg saltbush	ha	_*	_*	-*	-*	-*		
B Discharge – trees (interception)	ha	-*	-*	-*	-*	-*		
C Discharge – buffers – pastures (interception)	ha	_*	_*	_*	-*	-*		
Sub-surface water action								
D Revegetation – plantation / farm forestry only	ha	155	129	97	90	108		
E Revegetation – plant natives	ha	610	982	1,126	2,193	51		
F Pasture – plant	ha	627	543	1,543	250	617		
G New groundwater pumps	no.	0	0	0	0	_		
Planning for works action								
H Whole farm plans	ha	175	132	81	99	82		

* Data expected to become available from 2006-07.

Achievement against target:

Well below (<25%) Below (26-69%)



Certa	ainty of me	easuring:	
Low		Medium	High

Goulburn Broken Catchment Management Authority Results details for major strategic areas

Supporting (non-works) actions achieved in 2005-06

- Findings from the 2004 South West Goulburn report by SKM catalysed a major review of strategic issues in the Dryland (see further commentary elsewhere on "Dryland Landscape Strategy"). This review has focused on technical issues within agencies so far. The Co-operative Research Centre for Catchment Hydrology commissioned CSIRO Land Water to report on the salt and water impact assessment for Commercial Environmental Forestry in the South West Goulburn (see further commentary below).
- "My Farm Our Landscape" (MyFOL) program continues to be very successful, delivering 81 farm plans. Ninety-five per cent of these farm plans are referred to staff for incentive applications to undertake works. The requirement for a landholder to complete a Level 1 farm plan before applying

Achievement since Strategy start (1990)

for incentives means that every application now includes an evaluation of the landholder's property in the context of broader catchment issues. MyFOL is readily accessed by new and small landholders and this will be promoted in 2006-07. MyFOL also forms an important component of the statewide "Property Management Streamlining" project and enables more effective and integrated planning with local government.

 A review of the "Environmental Management Incentive" (EMI) system was completed. The goal of the review was to increase efficiency (dollars spent per area of works treated). Integration of the findings of this review with market-based incentive approaches such as Bush Returns (see Native Vegetation report) is important for the future.

gives a net

• Progress towards the highland salinisation target is on track.

Progress towards Resource Condition Targets

• Progress towards the (end-of-valley) Murray River salinity target from the Dryland has been behind schedule for several years. It is now known that the RCT is likely to be inappropriate and might need to be reset (see commentary below).

Progress towards RCT 8.3:

Maintain increases to salinity levels of the River Murray at Morgan from the Goulburn Broken Dryland at or below 1.3 ECs (equates to 67,000 tonnes per year of salt from Dryland) by 2050.



- Reduction in salt loads of around 35,000 tonnes per year is required to meet half of the proposed end-ofvalley target. Recent research suggests that this will require 23,000 to over 35,000 ha to be revegetated. The current trend for works in the Dryland is less than 15% of what is required to meet the endof-valley target. The level of non-government investment in tree planting is thought (with mediumlevel certainty) to be over three times that funded under Government programs. We do not know how well aligned this planting is with priority areas and therefore what impact it is having and will have.
- The other unknown is the effect of climate change or climate variability on projected salt movement and this is the subject of current research. The predicted climate change is likely (with medium-level certainty) to reduce salt movement and might (that is, we have low-level certainty) do so to such an extent that the existing end-of-valley target becomes achievable. Serious consideration has to be given to the implications for catchment water yield (the volume of water that "runs off" the dryland). Estimates of potential losses vary between 150 and 200 GL per year. More research is required on the differences in volume "running off" at different times of year and its impact on the environment and availability for consumptive use.

Supporting (non-works) achieved since Strategy started

- Our focus on delivery of integrated outcomes at operational level has increased dramatically over the past decade and will enable us to adjust to changes in strategic direction relatively smoothly.
- Research into strategic-level needs is well underway, with several projects planned for 2006-07.
- The "Multiple Outcomes Project" in Sunday Dry Creeks draft report highlights deficiencies in asset threat planning and the need to approach the problem in a more structured way.
- A review of salinity priorities in response to studies in the South West Goulburn and its implications for our capacity to meet the End of Valley Targets is underway. It is recognised that the extent of the problem and the likely lead times mean that focus has to shift to within-catchment conditions.

Major strategic area 2C: Environmental flows

Report compiled by:

Geoff Earl, Wayne Tennant, Scott Morath, Ken Sampson, Guy Tierney, Rod McLennan

Strategic references:

Victorian Government White Paper: Our Water Our Future (2004) Goulburn Broken Regional River Health Strategy 2005 (GBRRHS) Victorian River Health Strategy 2002

www.thelivingmurray.mdbc.gov.au

Resource Condition Targets (RCTs)

Providing environmental flows will improve rivers and streams, which will help achieve the 'Healthy Rivers, Healthy Communities' vision set in 2003:

"Healthy rivers, streams, wetlands, floodplains and adjacent land that support a vibrant range and abundance of natural environments, provide water for human use, sustain our native flora and fauna and provides for our social, economic and cultural values."

The "National Standards and Targets Framework" does not provide direction for setting RCTs for environmental flows. RCTs are likely to be developed that consider: Establishment of the Environmental Water Reserve which will improve flow regimes, thereby achieving flow objectives in 21 reaches of six high value rivers.

Achievement against 2005-06 funded targets

Works achieved against funded target in 2005-06



- About 510 GL was released to provide extended flooding of the Barmah-Millewa Wetlands. This was the first significant flood event for 5 years. It resulted in major responses in colonial waterbird, fish and frog breeding and improved vegetation health in 55% of the forest.
- Flows were actively used in the lower Broken Creek to limit azolla (duckweed) build up and low dissolved oxygen levels, and to provide fish passage. Activity is aimed at maximising conditions for Murray Cod and other native fish.
- Flooding was provided to significant wetlands in the lower Goulburn floodplain: Bray's, Kinnaird's and Reedy swamps.


Supporting (non-works) actions achieved in 2005-06

- Unregulated streams: updated flow modelling and flow determination completed for Sevens Creeks; updated flow modelling and flow determination commenced for Broken and Boosey creeks; updated flow modelling commenced for King Parrot Creek and Goulburn-Murray Water sought Ministerial support for establishing a Water Supply Protection Area for the King Parrot Creek catchment.
- A study of constraints to provision of environmental flows for the Goulburn River and the Living Murray commenced.
- A study of ecological implications of azolla in the lower Broken Creek was completed.
- Barmah wetlands: 2d-1d hydraulic modelling refined; issues and options report finalised; monitoring report finalised and incorporated into Barmah-Millewa lcon Site Plan and MDBC Outcomes Framework; consultation strategy finalised; GB CMA involvement in Co-ordinating and Technical Advisory Committees and GB CMA facilitated Consultative Reference Group (including a field day); monitoring report including waterbird and vegetation responses following environmental flows completed; large project proposals prepared.
- Development of wetland implementation plan for Green's Swamp, Broken Boosey Creek wetland system and mapping of Peatland and Spring Soaks commenced.
- A bioremediation wetland and bird hides for Gemmill's Swamp were designed.
- There was significant national media interest in Barmah environmental flows.
- The environmental condition of the Broken and Boosey creeks (as part of the assessment of the environmental impacts associated with commissioning of the Tungamah Pipeline) was benchmarked.
- Participation in the Statewide environmental water reserve officers' and wetland officers' networks.

Achievement since start of strategic approach (2004)

Progress towards Resource Condition Targets



 No RCTs have been set yet. The National Targets and Standards Framework (2002) does not provide direction for setting them. Flows provided for Barmah and other wetlands (as described above) represent significant biophysical achievements.

Supporting (non-works) actions achieved since strategic approach started

- The MDBC Living Murray Program and the First Step Decision aims to return the Murray River System to a healthy working river. The Barmah wetlands are one of six icon sites identified to benefit from the First Step Decision. 2005-06 actions have substantially progressed the planning of how to use water to improve wetlands health.
- The strategic approach to environmental flows is outlined in the Victorian Government White Paper "Our Water Our Future" (2004). The Environmental Water Reserve has been established as a legally recognised share of water to be set aside to maintain environmental values of inland waters and other services dependent on their environmental health. It outlines programs to improve environmental flows. 2005-06 is the first year of implementation.
- An overarching Victorian (Statewide) framework for monitoring ecosystem response to environmental flow releases has been developed. Targeted monitoring and assessment plans for individual river systems will be developed for the Goulburn and Broken systems.
- The "Index of Wetland Condition" was adopted and the "Index of Stream Condition" was reapplied.

Achievement against target:

Well below (<25%) Below (26-69%)

Satisfactory (70-99%) Exceed (100%+)



Certainty of measuring: Low Medium

Major strategic area 2D: Riparian and in-stream habitat and channel form

Report compiled by:

Wayne Tennant, Tom O'Dwyer, Christine Glassford, Rod McLennan

Strategic references:

Goulburn Broken Regional River Health Strategy 2005-2015 (GB RRHS) (and supporting sub-strategies, technical and discussion papers) Victorian River Health Strategy 2002

Wetlands Strategy for the Goulburn Broken Catchment (Draft August 2003)

Resource Condition Targets

Actions focused on improving the condition of rivers and streams will help achieve the 'Healthy Rivers, Healthy Communities' vision set in 2003:

"Healthy rivers, streams, wetlands, floodplains and adjacent land that support a vibrant range and abundance of natural environments, provide water for human use, sustain our native flora and fauna and provides for our social, economic and cultural values."

RCTs for river condition listed in the GB RRHS act as reference points for measuring progress towards achieving this vision. Other results, especially those for environmental flows, biodiversity and water quality, should also be considered to understand the totality of progress.

The following RCTs are modified versions of RCTs listed in the GB RRHS. (The form of these RCTs has been changed to help communication. The intent has not changed.)

- 3.1 Prevent a decline in condition of all reaches in high value rivers and streams.
- 3.2 Improve the condition of 30% of reaches of rivers and streams by 10% by 2015.

Investment and actions*		Fro	m funds r Region	eceived th al Manage	rough GB ement Plai	CMA′s 1
			Achieved		Target	%
						achieved
		2003-04	2004-05		2005-06	
Government investment*	\$,000		5,129	5,738	n.a.	n.a.
Stock grazing action						
A Fence wetland remnant	ha	13	24	6	13	43
B Fence stream/river remnant	ha	217.5	91	115	92	125
C Off-stream watering	no.	86	74	89	115	77
Nutrient-rich and turbid water & suspended solids action						
D Stormwater management projects	no.	1	2	2	4	50
In-stream & near-stream erosion action						
E Bank protection actions	km	11	41	16	23	72
F In-stream & tributary erosion controlled	km	83	916	502	139	190
Changed flow-pattern action						
G Water allocated eg wetlands	ML	0	266	510,000	10	5,100,000
Weed invasion action						
H Weeds – aquatic weeds controlled (eradicated)	km	0	21	33	0	-
Habitat loss management						
I Vertical slot fishway	no.	1	3	1	1	100
J Rock ramp fishway	no.	0	5	0	0	-
K Fish barrier removal	no.	0	0	4	5	80
L Establish Significantly Enhanced Aquatic Refugia	no.	10	17	1.3	6	20
M Construct new wetland	ha	0	3	0	2	0

* Many actions are undertaken via projects that are primarily aimed at achieving something else, such as water quality and biodiversity RCTs. Also, investment in riparian and in-stream habitat and bank stability contributes to other RCTs, especially those for water quality and biodiversity

Achievement against 2005-06 funded targets

Works achieved against funded target in 2005-06



This is the first year of implementing the GB RRHS. In 2003-04 and 2004-05, the now obsolete waterway management plans were implemented. This makes comparisons between 2005-06 and previous years meaningless.

This year major projects were initiated in the Broken River Basin under the Victorian Water Trust "Healthy Rivers" and "Our Water Our Future" initiatives. The emphasis was on the Broken River and Broken Boosey Nine Mile creek systems.

Supporting (non-works) actions [achieved in 2005-06

- Finalisation and Ministerial endorsement of GB RRHS.
- Waterway Management Plan completed for lower Broken Creek. This detailed works and activity plan includes a spatial analysis of threats and follows the completion of the Lower Broken Creek Strategy in 2004-05.
- An evaluation of public riparian lands on the Broken River (Casey's Weir to Lake Nillahcootie) was completed.
- The RiverConnect project was launched by Premier Bracks in November. The Project aims to involve urban communities of Shepparton and Mooroopna in managing and enjoying the rich ecological values and cultural heritage of the Goulburn and Broken River environs.
- Information from a community survey of attitudes to the Broken River is being fed into planning.
- Snapshot monitoring and detailed river assessments were undertaken and included:
- monitoring native fish movement in the lower Broken Creek and following construction of fishways on the Broken River
- monitoring flora, fauna and water quality and channel morphology following flow regime changes in the Broken and Boosey Creeks
- monitoring using Victoria's 'Index of Stream Condition' (included 15 annually monitored 'sentinel' sites first assessed in 2004 and 46 'new' sites)
- assessing riparian projects in the Upper Goulburn using Index of Stream Condition, Vegetation Quality Assessment and Habitat Hectare methods.
- Environmental flow determinations were initiated for Seven Creeks and the upper Broken Creek.
- A vertical slot fishway at Casey's Weir on the Broken River was constructed and monitored.

- A review of priority fish barriers within the Broken River Basin was completed.
- The Minister approved King Parrot Creek's catchment as a Water Supply Protection Area which enabled the stream flow management plan for the Creek to start. A decision was made for the Yea River to follow this process next year. The Resource Allocation Model (REALM) for both catchments was updated.
- A methodology to rank wetlands and wetland systems was drafted. Reports produced included Wetland System Implementation Plan for Broken, Boosey and Nine Mile creeks, Identification and mapping of peatlands and spring soak wetland systems, and Design of a bioremediation wetland and bird hides for Gemmill's Swamp.
- Refresher and induction training on indigenous heritage was promoted through the GB CMA's agency staff and community representatives.
- Contributed to statewide river health forums and product development processes, including the Victorian Waterway Managers' Forum, Co-operative Research Centre for eWater Product 6.

Achievement since Strategy start (2005)

Progress towards Resource Condition Targets

- The methodology to measure and show progress towards RCTs is being developed. The RCTs listed here are not intended to replace those listed in the GB RHHS. They provide a clearer idea of what is trying to be achieved and do not fundamentally change the intent.
- Although the links between actions and RCTs have not been quantified, expert advice (Wayne Tennant) is that RCTs will not be achieved until well beyond 2015 at 2005-06 implementation rates. 2005-06 implementation was on target for funds received. Expectations might have to be revisited.

Supporting (non-works) actions achieved since Strategy started



• The same impact of less than planned for funding on progress toward RCTs applies to non-works actions. We would like to be further ahead in establishing our long-term capacity to deliver changes, especially with the filling of gaps in knowledge.

Major strategic area 2E: Water quality (nutrients) in rivers and streams

Report compiled by:

Sue Botting, Wayne Tennant, Ken Sampson, Greg Smith, David Hodgkins, Carl Walters, Rod McLennan

Strategic references:

Goulburn Broken Water Quality Strategy 1996-2016 Goulburn Broken Regional River Health Strategy 2005 (GB RRHS)

Resource Condition Targets (RCTs)

The Goulburn Broken Catchment Community's goal for water quality set in 1996 (reviewed in 2002) is:

"Improve and maintain water quality at optimum levels within and downstream of the catchment for native ecosystems, recreation, human and animal consumption, agriculture and industry."

Elevated nutrients have been identified as a high priority issue for water quality in the Goulburn Broken as they can stimulate excessive production of algal growth. Phosphorus loads are used as an indicator of water quality in our rivers and streams because it is a limiting factor in the development of toxic blue-green algal blooms and flow dependant blooms of azolla that have been linked to fish deaths in the Broken Creek. Targets for phosphorus loads are therefore reference points for progress in carrying out this strategy.

Resource Condition Targets set in 1996 are:

- 6.1 Reduce potential phosphorus loads by 65% by 2016 by reducing phosphorus loads from:
- 6.1.1 irrigation drains by 50%
- 6.1.2 dryland and diffuse sources by 20%
- 6.1.3 wastewater management facilities by 80%
- 6.1.4 urban stormwater
- 6.1.5 intensive agricultural industries and local water quality issues

Targets have not been set for nitrogen loads as the reduction of phosphorus, and subsequent increase in nitrogen to phosphorus ratio, was the emphasis of the strategy. However, opportunities to reduce nitrogen, particularly where associated with phosphorus reductions, were pursued where cost effective.

Achievement against target:

Well below (<25%) Below (26-69%)



Certainty of measuring:

Low Medium

High

Achievement against 2005-06 funded targets

Works achieved against funded target in 2005-06

Investment and actions*		From funds received through GB CMA's Regional Management Plan				CMA′s 1
			Achieved		Target	%
						achieved
		2003-04	2004-05		2005-06	
Government investment*	\$,000		5,129	5,738	n.a.	n.a.
Stock grazing management action						
A Fence wetland remnant	ha	12.6	24	6	13	43
B Fence stream/river remnant	ha	217.5	91	115	92	125
C Off-stream watering	no.	86	74	89	115	77
Surface water^						
D Drain – primary***	km			* * *		
E Drain – community	km					
F Farm reuse system@	no.	78	65	70	55	127
G Drain – divert water	ML	320	1,350	235	570	41
H Irrigation systems – improved#	ha					
Nutrient-rich and turbid water and suspended solids						
I Stormwater management projects**	no.	1	2	2	4	50
In-stream and near stream erosion						
J Bank protection actions	km	11	41	16	23	72
K In-stream and tributary erosion controlled	km	83	916	502	139	361
Habitat loss management – wetlands						
L Construct new wetland^^	ha	0	0	0	2	0

* Many actions are undertaken via projects that are primarily aimed at achieving something other than water quality targets, such as riparian health and salinity targets. (Through integration water quality outcomes are also achieved through complementary projects.) Investment shown is for those funds dedicated primarily to achieving water quality outcomes, which are mainly for co-ordination and education (WaterWatch).

^ Surface drainage enables the removal of excess rainfall runoff from irrigated lands, alleviating soil salinity. Nutrient loads collected by the drains are managed through drainage reuse and management plans, and monitored against the resource condition target (6.1.1).

Reuse dams allow for the collection and re-irrigation of high nutrient runoff, reducing the water and nutrient loads leaving the farm.

Improved systems include laser grading, automatic irrigation and micro-irrigation.

** Stormwater management projects are undertaken on a one to one funding basis with local government. Projects include gross pollutant traps at Asim Drive and Colliver Road in Shepparton and Lowry Street in Benalla.

- ^^ 3 ha recorded in 2004-05 did not have any link to water quality RCTs.
- *** 4.8 km of fencing and 2.3 km of laneways relocated along primary drains to control stock (Murray Valley Drain 13).
 17.4 km of drains also hydromulched and seeded to provide vegetative cover on bare batters.

- A 2005 survey in the Central Goulburn Irrigation Area found that 91% of dairy farmers have reuse systems and 79% use these systems at most irrigations.
- During 2005-06 less than 3% of water delivered into the Shepparton Irrigation Region flowed out in drains. This is the fifth year in a row that we have kept under our long-term nutrient targets, which is an excellent environmental result.

Supporting (non-works) actions achieved in 2005-06

- Finalisation and Ministerial endorsement of GBRRHS.
- A review of nutrient levels in drains in the Shepparton Irrigation Region for 2004-05 was completed.
- Commenced mid-term review of Goulburn Broken Water Quality Strategy 1996-2016. This aligns with the review of the Shepparton Irrigation RegionCatchment Strategy, including component reviews of Environment, Farm and Surface and Sub-Surface Water Management Programs.
- Stormwater education officer has worked with council officers and builders to improve on-site management practices for stormwater protection and litter control.
- The Waterwatch Program provides educational and extension support to schools and communities. In 2005-06



4,800 students participated in Waterwatch activities, including 34 schools involved in Catchment Capers. Fourteen community networks operated across the catchment with all new monitors were trained on entering the program. Data from over 200 sites has been entered on the Waterwatch database and 27 media articles and 2 newsletters were published.

- Contribution to the statewide Water Quality Co-ordinators' Network.
- Implementation of the Irrigation Drainage Memorandum of Understanding with catchment partners (EPA, DSE, G-MW) with development of Decision Support Systems for establishing key performance indicator targets at receiving waterways and also management action targets to ensure progressive improvements in water quality.

Achievement since Strategy start (1996)

Progress towards Resource Condition Targets

- RCT 6.1 Phosphorus loads (5-year rolling average) from the Goulburn Broken catchment are below that of the long term average. This currently equates to a reduction of 80% from the benchmark year of 1993-94, however this was influenced by the impacts of extended drought period since 1998.
- RCT 6.1.1 The estimated total phosphorus loads discharged from irrigation drains since 1990-91 have risen over the past few years but are still below the long-term target. The 5 year rolling average has levelled out and remains well below the target. This correlates with substantially lower volumes of drain flows.
- RCT 6.1.3 The upgrading of the region's wastewater management facilities resulted in the Wastewater Management Facilities Program meeting its targets by 2002.

Achievement against target:

Well below (<25%) Below (26-69%)



Certainty of measuring:



Notes: 2005-06 data could not be compiled for the graph to be updated in time to meet the shortened deadlines for the Annual Report: 2004-05 data are the most recent available.

More graphs and notes associated with this graph can be found at www.gbcma.vic.gov.au

• Statistical and trend analysis of irrigation drainage water quality and quantity undertaken every 2 years has shown large declines in flows and nutrient loads leaving drains.

Supporting (non-works) actions [achieved since Strategy started

- A new water quality plan is being developed in consultation with other CMAs and the DSE. The plan will align with the Regional River Health Strategy and incorporate programs from the Goulburn Broken Water Quality Strategy 1996-2016, and the application of ecological risk assessments as required by State Environment Protection Policy (Waters of Victoria).
- The Environment Protection Authority process to undertake ecological risk assessments has been reviewed and will be applied to projects in the Delatite River, Holland's and Ryan's Creeks and Mid Goulburn River sub-catchments in 2006/07.

- The review of the Water Quality Strategy 1996 in 2001 found that the program had exceeded work targets. The most important of these was the establishment of water management facilities, many years ahead of schedule, which translated into significant reductions in phosphorus loads to be achieved many years ahead of schedule.
- There has been significantly greater investment in communicating achievements of reducing phosphorus from irrigation drains. This has included development of a multi-agency memorandum of understanding.
- The next review of the Goulburn Broken Water Quality Strategy 1996-2016 will be completed in 2006-07. This will become an Action Plan under the GB RRHS. Scoping of this is underway.
- An Ecological Risk Assessment using Guidelines for Environmental Management Risk-based Assessment of Ecosystem Protection was initiated in the Delatite River Catchment. This will enable the community to determine further work requirements. The process has been re-evaluated with support of the Water Studies Centre (Monash University) to streamline the process for investigation in future years.

Additional references: Nutrients in Drains in the Shepparton Irrigation Region 2004-05 (memorandum by Greg Smith) Review of Goulburn Broken Water Quality Strategy 1996-2016 (Brian Garrett and Associates 2001)

Achievement against target:

Well below (<25%) Below (26-69%)

Satisfactory (70-99%) Exceed (100%+)





High

Major strategic area 3A: Native vegetation

Report compiled by:

Kate Brunt, Rod McLennan, Tim Barlow, Carla Miles

Strategic references:

Goulburn Broken Native Vegetation Management Strategy 2000 From the fringe to mainstream – A strategic plan for integrating native biodiversity 2004-07

Resource Condition Targets (RCTs)

Native vegetation management and restoration are key activities in achieving our native biodiversity mission (set in 1999), that is:

".... to secure the future of native species of plants, animals and other organisms within the Catchment".

Native vegetation RCTs were set in 2000 to define what we aim to achieve over the long-term and provide measurable reference points of progress towards carrying out this mission.

- 3.1 Maintain extent of all native vegetation types at 1999 levels in keeping with the goal of 'net gain' listed in Victoria's Biodiversity Strategy 1997.
- 3.2 Increase the cover of all endangered and applicable vulnerable ecological vegetation classes (EVCs) to at least 15% of their pre-European vegetation cover by 2030.
- 3.3 Improve the quality of 90% of existing (2000) native vegetation by 10% by 2030.

Related RCTs, such as those for threatened species, should also be considered to understand the totality of progress towards this mission.

Achievement against 2005-06 funded targets

Works achieved against funded target in 2005-06

		_				
Investment and actions*			From funds received through GB CMA's			
			Region	al Manage	ement Plar	1 I
			Achieved		Target	%
				-	achieved	
		2003-04	2004-05		2005-06	
Government investment*	\$,000	1,819	2,512	1,975	n.a.	n.a.
Stock grazing management action						
A Fence terrestrial remnant vegetation	ha	511.7	771	519	382	136
B Fence wetland remnant	ha	12.6	24	6	13	43
C Fence stream/river remnant	ha	217.5	91	115	92	125
D Binding management agreement (license, Section 173,	ha	230.5	797	758	1,000	76
covenant)						
Habitat loss management						
E Revegetation – plant natives	ha	706.3	1,055	1,294	2,337	55

Investment shown is for those funds dedicated primarily to achieving biodiversity outcomes, particularly native vegetation targets.
 Our focus on integration across programs means biodiversity outcomes are also achieved by complementary programs such as
 Pest Plant and Animal and Riparian Management.

Supporting (non-works) actions achieved in 2005-06

- A research project was undertaken through the "Bush Returns" project to increase knowledge about the factors that influence natural regeneration. This information will be used in the future design of projects aimed at achieving native vegetation RCTs.
- An evaluation of the mix of methods being used to achieve biodiversity targets in the Goulburn Broken Dryland was undertaken. This review will be used to inform future projects.
- A project designed to foster best practice in revegetation and vegetation management is continuing. This project delivers a range of information and training events to enhance the knowledge and skills base.
- Trials of salt tolerant inoculants in direct seeding are being undertaken with CSIRO to improve success rates of direct seeding in salt effected sites.
- Successful trial projects across the Catchment were undertaken to integrate Biodiversity Action Planning principles into extension activities.

- A project to inform real estate agents of the appropriate management and marketing of land supporting native vegetation was delivered across the Catchment.
- A Goulburn Broken Catchment email discussion group "Chough Chat" was established to increase communication amongst people involved in biodiversity management across the Catchment (see http://lists.vicnet.net.au/mailman/listinfo).
- An annual review of actions listed in From the Fringe to the Mainstream – A Strategic Plan for Integrating Native Biodiversity was undertaken by GB CMA staff.

Achievement since Strategy start (2000)

Progress towards Resource Condition Targets

- If it assumed that there is a 10 year lag (as shown below) between an action designed to improve quality, and the actual, measurable improvement in quality, then it appears we are considerably behind schedule. On the other hand, should the overall improved quality be achieved in 5 years, we appear to be on track. This reflects on the limited resources available, and the infancy of the science behind setting realistic targets, not the effectiveness of delivery programs. Irrespective of the time lag, the graph below clearly shows that innovative approaches (such as Bush Returns) to securing and regenerating larger and more contiguous blocks of land are required to address the area required.
- At this stage, we have not included public land as the traditional focus of the GB CMA has been on private land, not on State and Commonwealth-managed land. This will likely change in the future to focus on all vegetation regardless of tenure.

Supporting (non-works) actions

achieved since Strategy started

- The final draft of the Goulburn Broken Biodiversity Condition and Values Report was completed in June 2006.
- A background and discussion paper to increase the accuracy and certainty of assumptions (the impact of actions on progress towards RCTs) was developed. The first action is a research project to determine the extent of on-ground management that has been, or is being, undertaken by groups and individuals without any public funds.
- Large-scale changes through long-term agreements and payments for active management and stewardship are starting to be achieved via the "Bush Returns" project.
- Significant progress was made in making sense of available data to inform strategic thinking. For example, we have dramatically improved our ability to understand the effectiveness of actions by organising available data on outputs and linking them to outcomes so that the above graph could be produced. This prompts key strategic questions that need to be asked when the Strategic Plan for Integrating Native Biodiversity 2004-07 and the Native Vegetation Management Strategy 2000 undergo their 'end of strategy' reviews during 2006 and 2007. However, most tasks listed in the major strategies have been completed according to schedule.
- Our increased ability to understand the effectiveness of our actions might result in significantly different RCTs when they are reviewed. For example, rather than focussing on increasing cover of threatened Ecological Vegetation Classes to a fixed percentage of pre-European extent (RCT 3.2) or complex standards, it might be more appropriate to look at the functionality of native vegetation (how useful it is for biodiversity).



Additional references:

Goulburn Broken Biodiversity Condition and Values Report (Draft) June 2006, Contact GB CMA Benalla (Kate Brunt)

A review of the mix of methods to accelerate progress towards the biodiversity targets in the Goulburn Broken Dryland 2006 (prepared by Kenway, J. and Roberts, K., of Roberts Evaluation for the GB CMA and DPI Victoria).

Assumptions and notes associated with this graph can be found at www.gbcma.vic.gov.au

Major strategic area 4A: Climate change

Report compiled by: Tim Barlow, Rod McLennan

Strategic references: Victorian Greenhouse Strategy 2002 National Greenhouse Strategy 1998

Targets

The GB CMA is clarifying its strategy including its role in responding to climate change. Biophysical targets and supporting action targets are being refined in alignment with State and Federal strategies.

Supporting (non-works) actions achieved in 2005-06 and strategically to date



Climate change and its associated changes to our natural, agricultural and urban environments is likely to bring profound changes to our community, ranging from decreased frosts, less and more erratic rainfall, more frequent wildfire, and species extinction. Increasingly, we are building adaptation strategies into all of our programs. The GB CMA is involved in improving understanding and readying the community for action through:

- improving our understanding of the implications of climate change on biodiversity;
- opportunities to enhance habitat values in carbon sequestration projects;
- greenhouse processes and mitigation practises relevant to irrigation;
- hosting a workshop, led by experts commissioned by the Australian Greenhouse Office, on Carbon Trading. The workshop highlighted opportunities available to regional bodies, and explored the environmental, economic and legal issues surrounding carbon sequestration and trading; and,
- the role of landscape-scale 'biolinks' which build on existing biodiversity 'reservoirs', and synergies possible through changing land-use patterns.

Individual action is required to address the impacts of climate change. Although the individual contribution may seem infinitesimally small, the collective action will drive change and force others to act. We are currently liaising with local government and adjacent CMAs on the establishment of alliances for Greenhouse action.

Major strategic area 5A: Flood protection

Report compiled by:

Guy Tierney, Rod McLennan

Strategic references:

Goulburn Broken Regional Floodplain Management Strategy 2002

Long-term Targets

The vision set in 2002 to plan for and manage floods is:

"....to achieve best practice floodplain management for the benefit of current and future generations...."

Two long-term targets have been proposed to provide measurable reference points of progress towards achieving this vision. These targets, which are likely to be confirmed during 2006-07, are:

- 1 Reduce the impact of flooding on the built environment.
- 2 Provide ecosystems with natural flooding patterns where appropriate.

The second target is closely linked to targets in listed under major strategic areas 2C and 2D.

Achievement against 2005-06 funded targets

Reduced flood damage (\$) achieved in 2005-06: methodology for setting targets and showing achievement is being developed.

The GB CMA coordinates the implementation of the Goulburn Broken Regional Floodplain Management Strategy. Following the completion of a number of floodplain management plans, responsible authorities are implementing the plan recommendations with funding through Local, State and Australian Government Grants. 2005-06 included implementation of:

- Benalla Rural City Council commenced implementation of a water (flood mitigation) scheme for Benalla;
- Greater Shepparton City Council completed installation of the stream and rain gauge data collection network and the Municipal Emergency Management Plan Flood Sub Plan.

Medium

High

Certainty of measuring:

Low

Achievement against target:

Well below (<25%) Below (26-69%)



Supporting (non-works) actions achieved in 2005-06

Investment and actions		From funds received through GB CMA's Regional Management Plan		
		Achieved	Performance* or progress in 2005-06	
Government investment*	\$,000	\$254	n.a.	
Integrating knowledge into planning				
A Subdivisions	no.	300	Responded within statutory timeframes to applications to the eight municipalities in the GB CMA 98.5% of the time.	
B Dwellings	no.	370		
C Retail, Shop or Office buildings	no.	200		
D Planning amendments gazetted	no.	2	80% completed - Two planning scheme flood amendments were completed and gazetted. These included new mapping, exemptions and incorporated performance-based criteria documents.	
E Flood levels declared	no.	0	6 advertised for intent to declare.	
F VCAT and Panel hearings attended	days	8		
G Flood warning systems arranged	no.	1	80% completed of entire Goulburn Broken district done. Only Broken Creek to go.	
H Planning, other		200	Includes whole farm plans.	
Gathering new knowledge				
I Urban flood studies and management plans	no.	4	80% of tasks completed. (Grants are handled through municipal councils.)	
J Regional flood studies and management plans	no.	3	60% of tasks completed.	
Creating awareness				
K Flood education and awareness program	no.	1	The GB CMA and Greater Shepparton City Council hosted 170 delegates from most Australian states and New Zealand at the 4th Victoria Flood Management Conference. The theme "prevention, response, recovery" provided a diverse range of delegates from flood warning to managing social trauma. Significant investment in raising awareness of flooding issues with Lake Mokoan. Research into access to web-based flood information as part of emergency management arrangements and community awareness was undertaken. CSIRO has developed this concept and it is to be trialled as part of the Shepparton Mooroopna Flood Warning and Emergency Management Implementation.	

* Most actions are performed reactively so no targets are set annually.



Satisfactory (70-99%) Exceed (100%+)





High

Achievement since Strategy start (2002)

Progress towards long-term targets listed in Strategy (2002-2012)

Reduced flood damage (\$) achieved since 2002: methodology for setting targets and showing achievement is being developed. Supporting (non-works) actions achieved in 2005-06



Implementation of the Regional Floodplain Management Strategy is opportunistic, being subject to funding under Australian and State government incentives. The Strategy has nine programs and a summary of an inhouse review of implementing these programs is shown below.

		Progress					
Pr	ogram	against tasks scheduled to be completed by 2012, %	against tasks scheduled to be completed by 2006, %	Comments			
1	Asset management	70	70	No further progress likely.			
2	Flood Studies and Floodplain Management Plans	45	80	All very high priority studies are completed or progressing. Low priority studies not likely to proceed. Some lower priority studies have also been completed. Areas which have undergone major investigations since 2002 include Benalla, Shepparton, Nathalia, Tatura, Violet Town, Yea, Mansfield, Merrigum, Seymour, Lower Goulburn, Murray River region, Barmah Millewa, Numurkah. These complemented previous studies on the Broken Creek, Euroa, Seymour and Jamieson. Many study recommendations have been implemented.			
	Floodplain works	60	70	Euroa, Benalla, Shepparton Schemes well underway as priority urban centres Works on Public Works Department levees carried out on behalf of DSE.			
3	Statutory Land Use Planning	75	100	Planning Reforms gazetted into five municipal planning schemes, including updated mapping, Strategic Statement, Schedules and Local Floodplain Management Plans for Campaspe, Greater Shepparton, Murrindindi, Mitchell and Strathbogie. Moira Shire is ready to advertise. These initiatives have helped to streamline planning referrals and remove the need for unnecessary referrals.			
				Euroa, Seymour, Shepparton and Mooroopna following public exhibition.			
				Intention to designate flood levels has been placed on public exhibition for Jamieson, Mansfield, Yea, Merrigum, Tatura and Nathalia.			
				Implementation planning for Benalla Scheme used very effective technical process to cater for community desire for very sensitive, as opposed to wholesale, clearing of native vegetation.			
	Infill (improve) flood mapping	75	100+	Priority areas surrounding urban centres have been included in most planning schemes. Flood mapping within most rural areas have been reviewed during planning scheme amendment exhibition. Considerable field inspection with community consultation has improved flood mapping. Improved flood mapping in remote rural areas is reliant on flood data capture including flood photography and flood levels. Lack of ground level data is the largest and most expensive impediment that prevents improved flood mapping. As more digital terrain information is captured, flood mapping improvements may follow. Given little demand on development in remote areas priority will remain low and unlikely to be reviewed.			
4	Development Assessment Guidelines	100%	100%	This is strongly linked to program 3. Ongoing reviews are needed.			
5	Control of Works and Activities	N/A	100%	This is no longer regarded as a program and it highlights the number of tools available.			
6	Emergency Response Planning	20	100%	The North East Regional Monitoring Network Agreement (2005) has largely resolved many of the issues listed in the Strategy. Municipal Emergency Management Plans Flood Sub Plan requires significant work across the GB CMA.			
7	Flood Monitoring Action	60	100%	The Flood Response Action Plan requires urgent review and testing.			
8	Information Management Systems	50	100%	In 2005, the first integrated ArcGIS database established for planning referrals and advice. In addition, flood datasets have been compiled.			
9	Education and Communication	30	100%	Has commenced, with an emphasis on Lake Mokoan, although the overall program will be widened and have a heightened profile during 2006-07.			

Major strategic area 6A: Generating and managing revenue from Government and the regional community

Report compiled by:

Bill O'Kane, Megan McFarlane, Rod McLennan, Stan Gibney

Strategic references:

Goulburn Broken Catchment Management Authority Corporate Plan 2005-06

DSE Assessment of Corporate and Statutory Costs, December 2005

Targets

While the CMA only has limited control over what the total level of investment in natural resource management within the Catchment is, the setting of investment targets as reference points promotes a business like approach to revenue raising and management, allowing comparisons of scale, marketshare and efficiency to be made. The GB CMA has therefore begun benchmarking estimates of costs in generating revenue from government and nongovernment sources.

This will likely lead to some form of target setting for both revenue and costs of revenue generation and management.

Revenue and costs 2005-06

Performance: level of revenue received – Methodology for evaluating this has not been developed. Market-share is likely to be one measure.

Performance: efficiency of delivering

• The GB CMA has performed all statutory obligations required (see the compliance matrix in the governance section).

	Costs of managing and generating revenue and revenue raised				
Cost	'S				
А	Cost of managing the whole business, including corporate, revenue raising and management, community capacity, statutory costs	\$1.859 million			
В	Cost of managing the corporate part of the business, including varying percentages of governance eg Board and CEO, financial, human resource and front desk management (largely funded by DSE direct corporate costs)	\$0.920 million			
С	Cost of the revenue raising and revenue management part of the business	\$0.397 million			
D	Cost of managing the community capacity part of the business, including Landcare and significant part of implementation committees	\$0.306 million			
E	Cost of managing the statutory functions of the business for land and water issues	\$0.236 million			
F	Corporate charge out rate, (this is over and above the cost in B above)	0.39%*			
Reve	enue				
F	Revenue from Victorian and Commonwealth Governments	\$25 million			
G	Revenue from regional community**	\$55 million			
Rev	enue/Cost ratio				
Н	Revenue from Victorian and Commonwealth Governments/Cost of doing business (corporate costs)	27			

* Goulburn Broken has minimal corporate charge out rate to projects: most costs are covered by interest earned and specific allocations from DSE for corporate expenses.

** Includes Local Government and Rural Water Authority rates applicable to natural resource management, landholder contribution to works and dairy industry levy applicable to natural resource management.

Major contributors to investment in natural resource management in the Goulburn Broken Catchment in 2005-06



Revenue performance and efficiency over the long term

Performance: level of revenue received – Methodology for evaluating this has not been developed. Market-share is likely to be one measure.

Performance: efficiency of delivering



Major strategic area 7A: Staff

Report compiled by:

Kate Pendergast, Stan Gibney, Bill O'Kane, Rod McLennan

Strategic reference:

GB CMA Workforce People Strategy (Draft 2005) Public Sector Management Act 2004 (various guidelines)

Targets

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The GB CMA seeks to attract and retain talented staff and provide opportunities for them to develop while delivering our Regional Catchment Strategy.

Progress in implementing tasks listed in People Strategy

Reference points for helping to understand short and long-term progress are being listed in our People Strategy under two themes:

- 1 Capability
- 2 Organisational Culture

A works plan that lists tasks to be undertaken to deliver the People Strategy is developed annually under 7 areas.

Achievement against shortterm and long-term targets

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Our relatively stable workforce, particularly in senior management, has provided the continuity necessary for a strong and long corporate memory, which has enabled us provide strong leadership within and outside of the region.

			Progress				
Program	against tasks scheduled to be completed by 2009, %	against tasks scheduled to be completed in 2005-06, %	Comments				
1 Workforce Planning	60%	70%	As an employer of choice the Authority has focused on offering a full range of flexible work options using models from organisations that have adopted best practice.				
2 Developing People	50%	80%	Inclusion of development plans in all performance plans.				
3 Developing Leaders	70%	50%	Development of a leadership competency matrix with a pilot conducted within a specific work unit.				
4 Employee Relations	100%	90%	A review of human resources policies to align with Victorian Government standards and best practice was completed. Victorian Public Service merit and equity principles are applied in the appointment and management of staff.				
			The annual "People Matter Survey" includes staff perceptions of leadership, relationship with manager, job satisfaction and application of merit and equity principles. We had a 91% and 85% response rate for the 2005 and 2006 surveys. The majority of respondents are proud to work for the GB CMA, enjoy high levels of job satisfaction both with their immediate work team and the content of their specific work. A significant proportion of responses are more than 10% above those reported by the water sector as a whole. Future improvements include developing management skills and enhancing whole-of-organisation communication in a business that has experienced rapid growth over the past 24 months.				
5 Health & Safety	100%	100%	The GB CMA comprehensively reviewed its policies and procedures in 2005-06 and inducted all staff.				
			Manuals were developed and distributed and made available for contractors.				
			Designated work groups and health and safety representatives are part of the consultative processes reflecting updates of the Act.				
			Policies and procedures are available on the portal (intranet).				
6 Morale, Reward & Recognition	90%	100%	A "Reward and Recognition Kit" was developed for use by management and work teams to share and better understand and develop workplace options for rewarding and recognising staff. The Kit is full of information, ideas and useful tools for exploring staff attitudes and expectations.				
			The staff culture of giving and support was highlighted when a large team of staff contributed time, money and fund raising effort to the cancer Relay for Life cause and 63% of staff are participating in the Global Corporate Challenge medical research fundraiser and promotion of personal fitness and health.				
			The supportive culture of our staff carried us through the tragic death of a staff member. The generosity of spirit and giving was extended to each other and the deceased's young family with donations of time and gifts and through fund raising.				
7 People Management	100%	100%	Workplace behaviours have been incorporated into all staff performance plans				

Human resource statistics

Human resource issue	2003-04	2004-05	2005-06
Gender and			
Employment Type			
Part-time Male	0	0	1
Part-time Female	4	9	9
Full-time Male	23	26	28
Full-time Female	16	17	17
Total	43	52	55
Employment status			
Fixed term			12
Ongoing			43
Age profile			
(years, by %)			
20-24			1
25-29			8
30-44			26
45-54			13
55-59			6
60-64			1
65+			0
Years of Service			
12 months or less			6
1-3 years			17
3-5 years			11
5+ years			21
Turnover			4%
Absenteeism			1.8%
Employment Growth	10%	28%	11%

Age Profile – GB CMA Staff 2005–06



Achievement against target: Well below (<25%) Below (26-69%)

Satisfactory (70-99%) Exceed (100%+)





High

50

Major strategic area 7B: Communities and leadership

Report compiled by:

Bill O'Kane, Katie Brown, Rod McLennan, Wayne Tennant, Neville Atkinson

Strategic references:

Goulburn Broken Community Landcare Support Strategy 2005-2010

Goulburn Broken Monitoring Evaluation and Learning Plan Landcare Report Card 2005-06

Shepparton Irrigation Region Implementation Committee Communication Strategy

Achievements against short-term and long-term targets

Most investment in natural resource management in the Goulburn Broken Catchment is controlled by individuals and organisations other than the GB CMA and so there is a heavy reliance on partnerships and use of incentives for the targets listed in the Regional Catchment Strategy to be achieved. The Goulburn Broken's 185,000 people include 6000 indigenous Australians, many of them from the traditional Taungerang and Yorta Yorta Nations. In the Catchment's north, original settlers from the British Isles have been followed by migrants from Greece, Italy, Turkey Iraq, Afghanistan, India and many other countries. The Iraqi community alone numbers 600.

This diversity highlights the importance for the GB CMA to adopt a targeted approach to engaging communities so that Resource Condition Targets of the RCS can be achieved. The GB CMA's three Implementation Committees play a pivotal role in establishing the most effective and efficient ways of engaging their communities and this section should be read in conjunction with the Implementation Committee reports.

In the Goulburn Broken each Implementation Committee continues to strive to find better ways to engage with its community. In 2005-06 the Upper Goulburn Implementation Committee (UGIC) ran a community funding information seminar to promote funding opportunities for environmental projects. This resulted in a doubling of quality community project submissions for 2006-2007 funding, received in that region.

The UGIC also continues to maintain strong links with local government through:

- Supporting Landcare support and delivery based on shire boundaries;
- Holding at least one joint UGIC meeting per year with councillors and senior staff, from each Shire;
- Organising UGIC structure based on shire geographic sub-groups, as well as issues-based sub-groups.

In the Mid Goulburn Broken Implementation Committee region the committee invited Landcare Facilitators and community representatives to the regional priority setting meeting, to help directly engage key community stakeholders in setting regional NRM priorities for the coming year. The MGBIC were also successful in employing a new role of Community Programs Coordinator, to broaden the extent of community NRM engagement beyond Landcare in the region, and help better inform and educate the community in CMA activities, priorities and programs.

In the Shepparton Irrigation Region, more than 20% of all farmers are from a culturally and linguistically diverse background. In the Shepparton East area this figure rises to 80%.

The SIR Implementation Committee partners DPI to provide targeted services to multicultural communities. A full time multicultural facilitator has been employed since 1992. This past year the focus was on working in partnership with the Ethnic Council of Shepparton and District to increase the uptake of the Regional Catchment Strategy.

More than 250 contacts were made through one-onone visits in the Shepparton East area. Tensiometers were installed on 16 properties representing five ethnic groups in the area.

The Goulburn Broken Community Landcare Support Strategy 2005-2010 was developed as part of the State Government Victorian Action Plan for Second Generation Landcare. The Goulburn Broken Regional Landcare Coordinator, funded by DSE and hosted by the CMA, will play a pivotal role in implementing the Strategy. The Goulburn Broken Landcare Team completed its first full year of implementing a Monitoring, Evaluation and Learning Plan.

Using indigenous know-how

We continued to make greater use of the largely untapped knowledge reservoir that sits within our indigenous communities. This approach, which we began to focus on in 2004-05, is giving us improved ecological benefits and a richer and shared cultural heritage through increased appreciation by the wider community of the contributions that indigenous culture and knowledge can make.

We have also realised that the needs of the wider community and those of indigenous communities are not usually mutually exclusive and that better outcomes can be achieved through increased indigenous contributions, as equal partners, during the initial strategic planning phase and through advice during implementation. Indigenous participation is being increased through the fostering of mutual understanding and trust between the wider and indigenous communities by our indigenous facilitator who was employed during the year. Specific achievements for 2005-06 include major contributions to:

- ecological and cultural heritage planning and monitoring of the 510 GL environmental flow into the Barmah-Millewa Wetlands
- the strategic direction of the RiverConnect project (through indigenous participation at the ground-floor)
- a project for traditional knowledge exchange within indigenous and broader communities
- site planning for Lake Mokoan
- identification and protection of cultural assets as part of the CMA's operational role in waterways management
- development of Gemmill's Swamp Master Plan
- the Broken River floodplain project
- the Commonwealth department's water policy section
- the Living Murray Significant Environmental Asset Plan for the Barmah-Millewa Wetlands
- Aboriginal Affairs Victoria involvement in SIR's Surface Water Management Program.

Resource Condition Targets (RCTs)

Several communities are starting to set RCTs via processes such as Local Area Plans, where the Regional Catchment Strategy RCTs are interpreted at local scale. Some communities are also setting targets for action. The Annual Landcare Report Card developed in 2005-06 includes information on community engagement activities and outcomes including Regional Catchment Strategy outcomes that Landcare is contributing to.

Some of the RCTs that community and Landcare groups are contributing to are highlighted below.

LAND TARGETS

Soil health

Two National Landcare Program projects are contributing to better soil health knowledge and practice. The Balanced Productive Soils Project in the Mid Goulburn Broken employs a part-time officer to engage 14 Landcare groups and the Dung Beetle Project run through the Goulburn Murray Landcare Network employs 2 part-time staff to work across the Catchment.

Several biological and farm focus groups have been established with the support of local Landcare Facilitators and Co-ordinators to train, trial and evaluate biological farming and soil health methods as a way of minimising nutrient loads into waterways. This is also improving local knowledge of soil biodiversity and its role in productive and sustainable landscape management.

Pest plants and animals

Across the region Landcare is now playing a significant role in co-ordinating weeds and feral animal management, especially community projects for gorse, blackberry, and Paterson's Curse control and community

education for the land managers on their responsibilities. Numerous Landcare and community action groups have participated in coordinated fox and rabbit programs, based on both biodiversity and productive benefits, covering many thousands of hectares. Some of these programs have been going for over 10 years and there have been significant declines in feral populations.

WATER TARGETS

Riparian habitat

Numerous Landcare, school and community group plantings have addressed terrestrial riparian habitat loss. Many of these were co-ordinated by GB CMA Waterways revegetation staff. The Shepparton Mooroopna RiverConnect project, launched by the Premier in November, focuses on a multi-stakeholder approach to riparian rehabilitation and community connection and a project officer employed through the Goulburn Murray Landcare Network has been employed.

Water Quality

The Goulburn Broken Waterwatch Program continues to involve community volunteers and schools groups in regular, quality-assured and scientifically-sound water quality monitoring across the region. This data helps creates long term pictures on salinity and nutrient loads in the Catchment, directly engages the community in recognising water quality issues, and helps inform CMA Waterways work activities and targets.

BIODIVERSITY TARGETS

Native vegetation

Local community and Landcare groups continue to undertake small to large scale plantings. One of the most successful of these is the long running Glenaroua Land Management Group Annual Tree Planting days, which in 2005/06 involved several hundred local community members and metropolitan Melbourne Rotary members planting medium to large scale areas for salinity management and to enhance local areas of vulnerable native vegetation.

Threatened species

Community and Landcare groups are using local threatened species mapping and habitat management as a tool for engaging community members and volunteers in natural resource management. The Upper Goulburn Striped Legless Lizard project involves both rural and residential community members in annual habitat and population monitoring field days, while the Warby Ranges Carpet Python Project has helped create a focal point for whole communities to think about their native fauna and the impacts of their actions. Community groups focussed on threatened species include the Regent Honeyeater, Grey Crowned Babbler and Lima Stringybark accessing funds from a range of sources to educate and engage the community.

Goulburn Broken Catchment Management Authority Results details for other issues of concern

The preceding results details provide a snapshot and analysis of the GB CMA's major strategic areas. The following issues – threatened species and pest plants and animals – are also of considerable importance to the GB CMA.

Threatened species

Report compiled by: Tim Barlow, Rod McLennan

Strategic reference:

From the fringe to mainstream: A strategic plan for integrating native biodiversity 2004-07 (GB CMA)

The plight of threatened species is near the high end of the objectives hierarchy for the GB CMA (as implied in our Biodiversity Mission Statement) and is one of the main outcomes of most of the GB CMA's efforts, including large expenditure on water and land based activities that aim to protect and restore habitat.

Most of the discussion on native vegetation results therefore also applies to threatened species. (After all, healthy and plentiful native vegetation is one of the key ingredients to the survival of many threatened species.)

A target for threatened species was first proposed in the Goulburn Broken Native Vegetation Management Strategy (2000) and the National Framework for Standards and Targets (2002) has driven the need to establish targets for threatened species. However, the targets that have been developed have been difficult to measure progress against. The GB CMA is working with DSE and other CMAs to revise threatened species targets.

DSE has developed a draft framework for "Indicators, Target Setting, Monitoring and Reporting for Threatened Species and Threatened Ecological Communities" This framework is based on assessing three main attributes that provide an insight in threatened species trend in the GB Catchment, this includes "Population attributes (e.g. extent of range, populations counts, genetic diversity), Environmental attributes (physical and chemical environment, predators and competitors) and Future Risk attributes (non habitat based threats)" the framework was trialled in the Goulburn Broken of which 20% of the Catchments threatened species were assessed, the assessment showed:

- The majority of threatened species "populations" were static or declining and very few populations were improving (low – medium certainty);
- The majority of species "environment" was static (medium – high certainty), and;
- The majority of species "future risk" was also static (reasonably high certainty).

Pest plants and pest animals

Report compiled by:

Greg Wood, Lilian Parker, Wayne Tennant, Tim Barlow, Rod McLennan

Strategic references:

Catchment and Land Protection Act (1994) Goulburn Broken Weed Action Plan 2001-2005 Goulburn Broken Rabbit Management Action Plan 2001-2005

Wild Dog Management in North East Victoria 2005-2008 Goulburn Broken Regional River Health Strategy 2005-15

From the fringe to mainstream: A strategic plan for integrating native biodiversity 2004-07 (GB CMA)

Managing pest plants and animals helps us to achieve our long-term mission for biodiversity and contribute to agricultural productivity. The GB CMA has little influence over the total investment because most of it is paid for by private landholders.

The GB CMA operational waterways arm removed 33 km of aquatic weeds (see riparian, in-stream habitat and channel form report). Environmental flows were also used to flush out Azolla in the Broken Creek and an investigation into the biology, impacts on river health and water quality, and management of Azolla was initiated (see environmental flows report).

A co-funded project with Goulburn-Murray Water to develop a strategic plan for Arrowhead has begun.

The River Health program developed an "Aquatic and Riparian Weed" booklet in partnership with DPI. This booklet will assist both landowners and extension staff in identifying weed species and introduce them to management actions.

DSE funds DPI to manage pest plants and animals through the GB CMA's Regional Management Plan. Decisions on allocating these funds are generally made on a statewide basis: the GB CMA has little opportunity to influence these decisions. Significant changes to how these funds were spent were initiated during 2005-06.

Pest plant priorities underwent a major review following the completion of phase one of the "Victorian Noxious Weeds Review". A high priority is now placed on species regarded as new and emerging in the region, followed by more established species deemed to be a high priority in a state context (Victorian Priority Weeds). New and emerging weed species considered to be the highest priority for the region are those scheduled in the CaLP Act as State Prohibited species. In the Goulburn Broken catchment, these include Camel thorn, lvyleaf sida and Giant knotweed. A total of 9 infestations of State Prohibited species were located and treated across the catchment during 2005-06 and management plans were prepared for their ongoing treatment.

Victorian Priority Weeds in the Goulburn Broken catchment include Gorse, Serrated tussock, Ragwort and Blackberry and a large proportion of the DPI extension and compliance program was directed to these species. The focus on these species will increase even further in 2006-07. Over 103,000 ha of private land were inspected by DPI staff to assess priority weed infestations. As a result, 502 landholders were requested to undertake weed management works through the issue of a Work Plan Agreement. Thirty nine landholders failed to comply with a Work Plan Agreement and were subsequently issued with a Land Management Notice under the Catchment and Land Protection Act. All Land Management Notices were complied with to the satisfaction of the inspecting officer.

DSE has developed interim guidelines for preparing Regional Pest Plant and Pest Animal Plans in Victoria. The guidelines are being trialled by the Glenelg Hopkins CMA (pest plants) and GB CMA (pest animals). The trial plans will be available late in 2006.

Developing a Dryland Landscape Strategy

Information on dryland salinity processes emerged during 2005, from research undertaken in the south west Goulburn area, which made us realise that our approach needed a major overhaul, as it does elsewhere in Australia.

We now understand that revegetating vast tracts of land in the upper catchment to reduce Murray River salinity and saline discharge in lower areas of the catchment is overly expensive and involves prohibitive trade-offs from reduced volumes of water (yield) for downstream commercial, domestic and environmental purposes.

This was the catalyst for us to review our strategic-scale thinking on all issues in the dryland. This review assumes that for us to achieve the scale of works needed to have any material impact, in other words, for the net benefits to be substantial enough to warrant investment, a more holistic approach is needed.

The review, which started in November 2005, will ultimately result in a "Dryland Landscape Strategy", which is likely to become the dryland section of the RCS, due to be updated by November 2008.

The review to date has focused on engaging program leaders (dryland salinity, river health, biodiversity, development, community engagement, etc) within the GB CMA and regional and Statewide partner agencies to develop a common language and understanding of major assets, threats and issues so that options and their implications can be developed and clearly presented to the broader community. Step-wise, targeted engagement of the community will begin during 2006-07.

The interaction between program leaders has already generated spin-offs in the form of targeted projects that will improve understanding of such things as the audience for our natural resource management programs, the synergies and trade-offs of strategic-level planning between different programs, the mix of investment in issues and 'tools' that enable investment to achieve desired results and the future impact of major issues such as climate change, water, energy and demographics.

2005-06

Goulburn Broken Catchment Management Authority

Financial Information, Governance and Risk Management

Disclosure Index

This report is prepared in accordance with all relevant legislation. This index identifies the GB CMA's compliance with statutory disclosure requirements.

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Achievements against Key Performance Indicators (KPIs)

Implement Regional Catchment Strategy (RCS)	KPIs / Measure	Achievement
Develop an annual Regional management Plan (RMP) in line with RCS objectives.	Development of regional Catchment Investment Plan (RCIP) and finalisation of RMP within timeframes.	RCIP proposal for 2006-07 has been finalised within the timeframe. RMP (updated Corporate Plan) completed.
Annual review and identification of issues affecting RCS objectives.	Annual review to measure progress against targets in RCS.	This was completed for the first time as a schedule to the 2005-06 and was incorporated in the 2006-07 Plan. MER processes are allowing us to track progress against RCS objectives.
Review RCS every 5 years to ensure relevance and test assumptions.	Undertake appraisal of review of previous RCS.	Evaluation of previous review of RCS completed. Board agreed on way forward at June meeting.
Well informed & capable communities		
Highly functioning Implementation Committees performing in line with their Charter.	Monthly and detailed quarterly reporting to Board. Authority Chair and IC Chairs meet every six months. Annual review of IC Charter.	Board Charter finalised. IC Charter reviewed and ready to be signed off at first meeting in 2006-07. Meeting with IC chairs occurred once.
A well informed catchment community which understands the objectives of the RCS and their role in its implementation.	Effective Landcare network; Survey of CMA's role within Catchment (Statewide survey). Landcare facilitators to monitor Expressions of Interest / grants / relationships. Adoption of best management practices.	Statewide survey completed. Management currently reviewing with a view to change focus back to the Authority away from the ICs. EOI process working well with bids for grants being in the right order of magnitude as funds available. Expectations being managed reasonably well.
Healthy relationships		
Effective working relationships with the Minister for Environment, Minister for Water, Minister for Agriculture as well as advisors, both State and Federal	Accessibility to Minister. Number of pilot studies requested.	Relationships excellent. Our role in roll out of White Paper and water savings projects like Mokoan well respected. Failed to obtain Commonwealth support for Lower Goulburn proposal.
Effective working relationship with partners e.g. DSE; DPI; G-MW; GV Water; Local Government and EPA.	Annual review of relationships	Strong relationships have been maintained. MOU with DSE, DPI, GMW and EPA to be signed at August meeting. Local Government is improved with ICs playing a much more active role

Achievements against Key Performance Indicators (KPIs)

Healthy relationships		
Effective working relationship with key stakeholders as per the Hierarchy of Target Audiences.	Annual review and appraisal.	Undertaken at Corporate Plan Workshop. Exit interviews of Board members conducted in lieu of Board evaluation
Effective working relationship between the Board and management.	Formal protocols between Board and Management contact. Senior managers invited to attend Board meetings to give briefings.	Excellent relationship exists at all levels. Relevant managers have presented to the Board both at a quarterly review meeting and as and when required by the Board
Flexible and capable organisation		
Develop and retain a skilled workforce.	Staff turnover ratios.	Excellent and passionate workforce with negligible staff turnover (6% and 4% for last two years). People matters survey results very positive
Develop an innovative culture which utilises cost-effective new techniques and technologies.	Quantification of productivity savings.	Productivity plan achieved
Financially sound organisation which complies with its obligations		
Measure the Authority's financial resources in a responsible and accountable manner.	Use of internal KPIs. Monitoring of fixed costs and on-ground works.	Introduction of Axapta system now resulting in better information and more timely reporting.
Optimise extent of funding grants carry-over.	Project management and forward projections of percentage of works completed.	Carry forward reduced by \$1M this year. Plan to maintain at this level or increase slightly in preparation for projected funding reductions in NAP and NHT.
Ensure that the Authority meets its obligations in line with Ministerial Directions under the Financial Management Act.	Comprehensive internal audit works program to ensure compliance.	Annual Financial Management Compliance Framework review has been undertaken. Internal audit very positive. Audits of NAP and Water Trust very positive. The GBCMA's ability to get works on the ground now being acknowledged in many circles as the realisation that capacity building is not an end in itself.
Accurate and timely quarterly reports.	Four quarterly reports provided within agreed timeframes.	Comprehensive quarterly reporting in place. GBCMA reporting is the best in the State.

High standard of Corporate Governance

Conduct the business affairs of the Board in a manner consistent with best practice principles of corporate governance.	Adoption of DSE Corporate Governance Guidelines. Directors' approvals checklist. Review policies and procedures, Board Charter.	Boards Committee structure very effective in ensuring high levels of governance maintained. Board adopted and formally reviewed the Governance manual
	Report on in Annual Report.	Annual Report modified to reflect effort on compliance
	Benchmark Authority with peers and other worldwide organisations.	Benchmarking against other CMAs based on annual reports achieved. DSE Mann Judd review of CMAs reflected well on GBCMA as a lean organisation
	Time set aside within Board meeting for training.	Focus on Governance Manual. Two Board Members and Three managers completed the Institute Of Company Directors course.
Apply a risk-based approach to planning, budgeting and decision making processes.	Development and review of Risk Management Framework.	Detailed risk review carried out in May 2005 and internal audit program derived from review is in place.
	Implementation of Risk Register.	Business Manager developing a reporting methodology for Management to report regularly to the Board on our key risks.
Maintain performance management and reporting procedures that ensure accountability to the Government and other stakeholders.	Responsibilities under Statement of Obligation. Continue to work with Government to have confirmed funding approvals on time.	Statement of Obligations in place and working well. GBCMA met all requirements. Solvency concerns satisfactorily resolved. Service Level Agreement between CMA and DSE in place and reported against quarterly and annually.

GB CMA statutory responsibilities as a Victorian State Authority and Employer

Prepared by GB CMA Compliance Committee 30 June 2006

Act*	Major Item	2005-06 issues and status
Responsibilities as a Victorian State Authority		
Catchment and Land Protection 1994	Regional Catchment Strategy	Five year review due November 2008. DSE circulated draft discussion paper to develop RCS guide lines June 2006. GB RCS Steering Committee to convene September 2006. Commonwealth accredits following bilateral agreement with Victoria
	Annual Report	Essentially this records achievements against the 2005-06 Business Plan and the targets listed in the Regional Catchment Strategy. Expected to be tabled in Parliament 4 October 2006.
	Business Plan	See Business Plan under Water Act below.
		Copy is available for inspection during business hours.
Water 1989	Pecuniary interests	Declarations of Pecuniary Interests have been duly completed by all relevant officers of the Authority.
	Business Plan	(Business Plans are referred to as Corporate Plans.) Submitted to Minister 30 April 2005 and implented from 30 June 2005. Issues relating to the linking of the Business Plan to Regional Management Plan were resolved in 2005-06.
	Inspection of Business Plan	Copy is available for inspection during business hours.
	Funds	All funds were invested in accordance with the Trustee Act 1958. Interest earned is included in this Annual Report.
	Borrowings	Included in Business Plan.
	Proceedings of the Authority	The Authority operates under provisions of Schedule 2. The Authority adopted Governance Guidelines for Statutory Authority Board Members, DSE 2004 and conducted a training program for all directors.
Public Administration 2004	Guidelines for operations of a public entity Part 2 - Public sector values and employment Part 5 - Operations of a public entity	The State Services Authority has developed a range of guidelines to be adopted by public sector organisations. Guidelines cover employment principles, ethics, merit and equity. The GB CMA has reviewed its processes to ensure compliance. We have developed a recruitment kit and reviewed our equal opportunity, harrassment and bullying policy.
Freedom of Information 1982	Ability to request certain information, by members of the public	The Freedom of Information Act 1982 allows the public a right of access to documents held by the Authority. Freedom of Information requests are made in writing describing the documents requested and including payment of the \$21.50 application fee. Further charges may be payable. FOI fees and charges are not subject to GST. Requests to the Authority should be sent to Freedom of Information Officer, Kathy Fuller. The telephone contact number is (03) 5820 1100. Enquiries can be e- mailed to reception@gbcma.vic.gov.au. In the reporting period there were no requests for information.
Whistleblowers Protection 2001	Ability for employees or public to report improper conduct	No actions were undertaken. Disclosures of improper conduct by the Authority or its employees may be made to Fleur Jaques (Protected Disclosure Co-ordinator) or alternatively to the Ombudsman). (See details elsewhere in Annual Report.)
Planning and Environment 1987	Establish waterway planning authority	The Authority was established as a body corporate under the Catchment and Land Protection Act and then established as an Authoirty under the Water Act and given waterway management, floodplain management and drainage functions under Part 10 of the Water Act.
		For the reporting period, the Authority reported to the Hon. John Thwaites MP, Minister for Environment and Minister for Water.
	Application received from planning authority (local government) as a referral authority	Decisions are made in accordance with the State Floodplain Strategy, the Catchment's Floodplain Management Strategy, the Victorian Planning Provisions Practice Notes and Authority Policy. The Authority received more referrals than any other CMA in the State (850), for 2005–06
	Notice of application	Advice was provided as appropriate.

* All are Acts (unless otherwise stated) and are Victorian Government apart from those marked with *, which are Commonwealth.

Act*	Major Item	2005-06 issues and status
Responsibilities as a Victorian State Authority		
Privacy 2000	Maintaining privacy of third party information	The Authority has developed a privacy policy (in accordance with the Act) on how information is stored and under what circumstances it can be accessed or released to third parties.
Environmental Protection and Biodiversity Conservation 1999*	Various	All our works have a process which assesses the works against this Act. The Authority and its partners have complied with all requirements. Although the Authority has not referred any projects to the Minister in its own right, projects associated with the Minister's decommissioning of Lake Mokoan, the Deakin Drain 16 Extension project and Broken Creek surface water management were all referred.
Flora and Fauna 1988	Various	The GB CMA continues to support the implementation of Action Statements and Recovery Plans for threatened flora and fauna by the Dept of Sustainability and Environment.
Environmental Protection 1970	State Environment Protection Policy (SEPP) Waters of Victoria	Links to State Environment Protection Policy Waters of Victoria were maintained, including inclusion of SEPP in development of Goulburn Broken Regional River Health Strategy.
Forest Act	Code of Forestry Practice	In waterways managed by areas under the Act, the Authority complied with elements of the code which deal with access to waterways and crossings.
Financial Management 1994		Information listed in Part 9.1.3 (iv) is available on request.
Cultural Heritage 1986		Authority complied with requirements.
Building 1993		Authority complied with requirements.
National Competition Policy		Authority complied with requirements.
Marine Act 1988	Boating Authority	The Authority is reviewing boating speed limits and auditing signage and access in its area of responsibility, the Goulburn River downstream from Eildon Weir pondage and upstream of Hughes Creek.
Country Fire Authority 1958	Six sections of the Act that pertain to fires	The Authority has developed policies particularly relating to waterway operations which comply with the Act and reduce fire risk.
Responsibilities as an Employer		
Workplace Relations 1996* Workplace Amendment (WorkChoices 2005)		The Authority's policies are being evaluated for alignment against the Act. These policies are being reformated and will be placed on the Authority's portal (intranet). The Authority is renegotiating enterprise bargaining agreements with staff under provisions of Schedule 1/Collective Agreements (WorkChoices). Current agreement is Professional, Administrative and Technical Staff Enterprise Agreement 2003-06.
Equal Opportunity 1995		The Authority is an equal opportunity employer. Kate Pendergast is the sexual harrassment officer. No complaints were received in 2005-06.
Long Service Leave 1992* Victorian Long Service Leave regulations 2005 Water Long Service Leave regulations 2001		Policies comply with Act. Accounting policy is reflected in financial provisions included in notes with this Annual Report.
Occupational Health and Safety 2004, amended 2005		The Authority comprehensively reviewed its policies and procedures in 2005-06 and inducted all staff. Manuals were developed and distributed and made available for employees and contractors. Designated work groups and health and safety representatives are part of the consultative processes reflecting updates of the Act. Policies and procedures are available on the portal (intranet).

* All are Acts (unless otherwise stated) and are Victorian Government apart from those marked with *, which are Commonwealth.

Financial and Other Information

Summary of Financial Results – Current plus Past Four Years

	<mark>2001/02</mark> \$ 000's	<mark>2002/03</mark> \$ 000's	<mark>2003/04</mark> \$ 000's	<mark>2004/05</mark> \$ 000's	<mark>2005/06</mark> \$ 000's
Income & Expenditure					
Government Contributions	19,861	19,112	19,668	25,556	23,139
Other revenues	1,069	797	1,584	1,077	931
Total Income	20,930	19,909	21,252	26,633	24,070
Expense	18,748	19,089	22,487	26,883	25,030
Interest	-	-	7	6	18
Surplus/(Deficit)	2,182	820	(1,242)	(256)	(978)
Balance Sheet Items					
Current Assets					
Cash	4,356	7,784	8,210	8,357	8,102
Receivables	4,326	2,288	830	981	1,261
Inventories	2	1	-	-	-
Prepayments	28	36	12	156	104
Total Current Assets	8,712	10,109	9,052	9,494	9,467
Fixed Assets	999	1,078	1,144	1,329	1,471
Non Current Assets	-	-	-	-	-
Total Assets	9,711	11,187	10,196	10,823	10,938
Current Liabilities					
Trade Creditors	1,102	1,316	2,598	1,255	2,582
GST Liabilities	294	64	-	116	-
Borrowings	-	21	48	63	77
Accruals	1,681	2,247	1,163	3,214	3,012
Provisions	150	119	178	165	448
Total Current Liabilities	3,227	3,767	3,987	4,813	6,119
Non Current Liabilities					
Borrowings	-	70	88	77	103
Other	168	214	227	295	56
Total Non Current Liabilities	168	284	315	372	159
Net Assets	6,316	7,136	5,894	5,638	4,660
Equity Items					
Contributed capital	1,884	4,134	4,134	4,134	4,134
Accumulated surplus	4,432	3,002	-	-	-
Reserves	-	-	1,760	1,504	526
Total Equity	6,316	7,136	5,894	5,638	4,660
Cash Flow Items					
Net Operating Activities	(33)	3,659	723	634	216
Net Investing Activities Net Financing Activities	(411)	(322) 91	(342) 45	(435) (52)	(415) (56)
Net Cash Movement	(444)	3,428	426	147	(255)

Financial and Other Information



Summary of Financial Results (cont'd) – Current plus Past Four Years. Amounts in \$000's

Significant changes in financial results for 2005-06

Significant changes in the financial results for 2005-06 compared to the Authority's 2005-06 Corporate Plan are summarised as follows:

Statement of financial performance	Corporate Plan	Actual	
	\$000's	\$000's	
Total revenue	26,952	24,070	
Total expenditure	26,348	25,048	
Net Profit / (Deficit)	604	(978)	
Statement of Financial Position			
Cash & Receivables	8,720	9,363	
Other	40	104	
Non-current assets	1,638	1,471	
Total Assets	10,398	10,938	
Liabilities			
Current	(2,293)	(6,119)	
Non-current	(291)	(159)	
Total Liabilities	(2,747)	(6,278)	
Net Assets	7,651	4,660	

Consultancies

	2003-04	2004-05	2005-06
Cost, \$	\$1,066,180	\$1,464,772	\$1,183,409
Number of consultants	27	18	15
Consultancies in excess of \$100,000	0	0	1*

* SKM for project: Goulburn Campaspe Loddon Environmental Flow Delivery Constraints Study

Financial and Other Information



Board members of the GB CMA, as appointed by the Minister for Environment are:

- Don Cummins Charles Jones Catherine Scott
- Yvonne Davies Craig Madden Graeme Williams

Ailsa Fox Stephen Mills (Chair)

Lyn Gunter John Pettigrew

Kevin Ritchie and Brian Thompson represent DSE and DPI on the Board.

The Board has established Audit, Remuneration and Compliance Committees comprising the following Board members:

Audit Committee

Catherine Scott (Chair) Don Cummins Ailsa Fox Lyn Gunter John Pettigrew

All members of the Audit Committee are independent in terms of the State's Financial Management Compliance Framework. The committee met six times during the year and considered six audit reports on the GB CMA's operations.

Remuneration Committee

John Pettigrew (Chair)	Yvonne Davies			
Craig Madden	Stephen Mills	Catherine Scott		
Compliance Committee				
Craig Madden (Chair)	Graeme Williams	Stephen Mills		

Brian Thompson

Chief Executive Officer

Bill O'Kane

Senior Office Holders

Stan Gibney – Business Manager

Kevin Ritchie

The Business Manager's role is to ensure the efficient administration of the GB CMA and the provision of prompt and timely financial and risk management advice to the Board.

Charles Jones

Tim Barlow - Biodiversity Manager

The Biodiversity Manager is responsible for the development and implementation of major biodiversity strategies.

Tom O'Dwyer – Waterways Implementation Manager

The waterways implementation manager ensures that targets and outcomes agreed in line with funding bodies agreements as well as the GB CMA's Business Plan are achieved.

Guy Tierney - Floodplain Manager

The Floodplain Manager coordinates floodplain management activities across the Goulburn and Broken Basins.

Ken Sampson – Shepparton Irrigation Region IC Executive Officer

The SIRIC Executive Officer provides executive liaison with the Implementation Committee to ensure works program targets are met in line with the Business Plan.

Phil Stevenson – Mid Goulburn Broken IC Executive Officer

The MGBIC Executive Officer provides executive liaison with the Implementation Committee to ensure works program targets are met in line with the Business Plan.

Lilian Parker – Upper Goulburn IC Executive Officer

The UGIC Executive Officer provides executive liaison with the Implementation Committee to ensure works program targets are met in line with the Business Plan.

Wayne Tennant – Strategic River Health Manager

The Strategic River Health Manager provides strategic advice on emerging issues and policy development.

Objectives, functions powers and duties:

In relation to the undertaking of functions for which the GB CMA has direct service provision responsibility i.e. waterway management, floodplain management and regional drainage functions the GB CMA has powers under Part 10 of the Water Act. In addition to these the GB CMA also has the general powers of an Authority under part 7 of the Water Act which include:

- Power to do all things necessary (Section 123),
- Power to enter into contracts (Section 126),
- Commercial ventures (Section 127) and
- General By-law powers (Section 160 and Section 219).

Specifically under Section 13 of the Catchment and Land Protection Act 1994 the GB CMA has the following functions:

- To prepare a regional catchment strategy for the region and to co-ordinate and monitor its implementation,
- To prepare special area plans for areas in the region and to co-ordinate and monitor their implementation,
- To promote the co-operation of persons and bodies involved in the management of land and water resources in the region in preparing and implementing the strategy and special area plans,
- To advise the Minister, and, if requested by any other Minister, that other Minister
 - o on regional priorities for activities by and resource allocation to bodies involved in the management of land and water resources in the region and;
 - o on guidelines for integrated management of land and water resources in the region; and
 - o on matters relating to catchment management and land protection; and
 - o on the condition of land and water resources in the region;
- to promote community awareness and understanding of the importance of land and water resources, their sustainable use, conservation and rehabilitation;
- to make recommendations to the Minister about the funding of the implementation of the regional catchment strategy and any special area plan;
- to make recommendations to the Minister and the Secretary about actions to be taken on Crown land managed by the Secretary to prevent land degradation;
- to advise the Minister and provide information to the Minister on any matter referred to it by the Minister;
- to carry out any other functions conferred on the Authority by or under the CaLP Act 1994 or any other Act.

Whistleblowers Protection Act 2001

The Authority has established a Whistleblowers Protection Policy in line with its obligations under the Whistleblowers Protection Act 2001.

a) Contact persons within the Goulburn Broken Catchment Management Authority

Disclosures of improper conduct or detrimental action by the GB CMA or its employees, may be made to the following officers:

- The Protected Disclosure Coordinator
 Fleur Jaques (03) 5820 1100
- Protected Disclosure Officer/s
 Lilian Parker (03) 5736 0100
 Wayne Tennant (03) 5761 1506
 Peter Howard (03) 5833 5343
- All correspondence, phone calls and emails from internal or external whistleblowers will be referred to the protected disclosure coordinator.
- Where a person is contemplating making a disclosure and is concerned about approaching the protected disclosure coordinator or a protected disclosure officer in the workplace, he or she can call the relevant officer and request a meeting in a discreet location away from the workplace.

b) Alternative contact persons

A disclosure about improper conduct or detrimental action by the Goulburn Broken Catchment Management Authority or its employees, may also be made directly to the Ombudsman.

The GB CMA operates the current procedures in line with its Whistleblowers Protection Policy.

c) Protected disclosure officers

Protected disclosure officers will:

- Be a contact point for general advice about the operation of the Act for any person wishing to make a disclosure about improper conduct or detrimental action.
- Make arrangements for a disclosure to be made privately and discreetly and, if necessary, away from the workplace.
- Receive any disclosure made orally or in writing (from internal and external whistleblowers).
- Commit to writing any disclosure made orally.
- Impartially assess the allegation and determine whether it is a disclosure made in accordance with Part 2 of the Act (that is, a protected disclosure).
- Take all the necessary steps to ensure the identity of the whistleblower and the identity of the person who is the subject of the disclosure are kept confidential.
- Forward all disclosures and supporting evidence to the protected disclosure coordinator.

d) Protected disclosure coordinator

The protected disclosure coordinator has a central clearinghouse role in the internal reporting system. The Protected Disclosure Coordinator will:

- Receive all disclosures forwarded from the protected disclosure officers.
- Receive all phone calls, emails and letters from members of the public or employees seeking to make a disclosure.
- Impartially assess each disclosure to determine whether it is a public interest disclosure.
- Refer all public interest disclosures to the Ombudsman.
- Be responsible for carrying out, or appointing an investigator to carry out, an investigation referred to the public body by the Ombudsman.
- Be responsible for overseeing and coordinating an investigation where an investigator has been appointed.
- Appoint a welfare manager to support the whistleblower and to protect him or her from any reprisals.
- Advise the whistleblower of the progress of an investigation into the disclosed matter.
- Establish and manage a confidential filing system.
- Collate and publish statistics on disclosures made.
- Take all necessary steps to ensure the identity of the whistleblower and the identity of the person who is the subject of the disclosure are kept confidential.
- Liaise with the Chief Executive Officer of the public body.



INDEPENDENT AUDIT REPORT

Goulburn Broken Catchment Management Authority

To the Members of the Parliament of Victoria and Members of the Board of the Authority

Matters Relating to the Electronic Presentation of the Audited Financial Report

This audit report for the financial year ended 30 June 2006 relates to the financial report of Goulburn Broken Catchment Management Authority included on its web site. The Board of the Goulburn Broken Catchment Management Authority is responsible for the integrity of the web site. I have not been engaged to report on the integrity of the web site. The audit report refers only to the statements named below. An opinion is not provided on any other information which may have been hyperlinked to or from these statements. If users of this report are concerned with the inherent risks arising from electronic data communications, they are advised to refer to the hard copy of the audited financial report to confirm the information included in the audited financial report presented on this web site.

Scope

The Financial Report

The accompanying financial report for the year ended 30 June 2006 of Goulburn Broken Catchment Management Authority consists of operating statement, balance sheet, statement of recognised income and expense, cash flow statement, notes to and forming part of the financial report, and the certification to the financial statements.

Members' Responsibility

The Members of the Board of Goulburn Broken Catchment Management Authority are responsible for:

- the preparation and presentation of the financial report and the information it contains, including accounting policies and accounting estimates
- the maintenance of adequate accounting records and internal controls that are designed to
 record its transactions and affairs, and prevent and detect fraud and errors.

Audit Approach

As required by the *Audit Act 1994*, an independent audit has been carried out in order to express an opinion on the financial report. The audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance as to whether the financial report is free of material misstatement.

The audit procedures included:

- examining information on a test basis to provide evidence supporting the amounts and disclosures in the financial report
- assessing the appropriateness of the accounting policies and disclosures used, and the reasonableness of significant accounting estimates made by the members



Independent Audit Report (continued)

- obtaining written confirmation regarding the material representations made in conjunction with the audit
- reviewing the overall presentation of information in the financial report.

These procedures have been undertaken to form an opinion as to whether the financial report is presented in all material respects fairly in accordance with Accounting Standards and other mandatory professional reporting requirements in Australia, and the financial reporting requirements of the *Financial Management Act* 1994, so as to present a view which is consistent with my understanding of the Authority's financial position, and its financial performance and cash flows.

The audit opinion expressed in this report has been formed on the above basis.

Independence

The Auditor-General's independence is established by the *Constitution Act 1975*. The Auditor-General is not subject to direction by any person about the way in which his powers and responsibilities are to be exercised. The Auditor-General and his staff and delegates comply with all applicable independence requirements of the Australian accounting profession.

Audit Opinion

In my opinion, the financial report presents fairly in accordance with applicable Accounting Standards and other mandatory professional reporting requirements in Australia, and the financial reporting requirements of the *Financial Management Act* 1994, the financial position of Goulburn Broken Catchment Management Authority as at 30 June 2006 and its financial performance and cash flows for the year then ended.

JW CAMERON

✓ JW CAMERON Auditor-General

MELBOURNE 8 September 2006

> Victorian Auditor-General's Office Level 34, 140 William Street, Melbourne Victoria 3000 Telephone (03) 8601 7000 Facsimile (03) 8601 7010 Email comments@audit.vic.gov.au Website www.audit.vic.gov.au

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Certification to the Financial Statements

We hereby certify that the financial statements of the Goulburn Broken Catchment Management Authority, comprising an operating statement, balance sheet, statement of recognised income and expense, cash flow statement and notes to the financial statements have been prepared in accordance with the Financial Management Act 1994, applicable Australian Accounting Standards and other mandatory professional reporting requirements.

In our opinion, the financial statements present fairly the financial transactions for the year and the financial position of the Authority as at 30 June 2006.

At the date of signing, we are not aware of any circumstances which would render any particulars included in the financial statements to be misleading or inaccurate.

Signed in accordance with a resolution of the Board of Management dated 6 September 2006

S T MILLS, CHAIRMAN

S D GIBNEY, BUSINESS MANAGER

W J O'KANE, CHIEF EXECUTIVE OFFICER

Operating Statement for the Financial Year ended 30 June 2006

Pavanuas	Note	<mark>2006</mark> \$'000	<mark>2005</mark> \$′000
nevenues	_		
Government Contributions	2	23,139	25,556
Other revenues from non-operating activities	2	931	835
		24,070	26,391
Expenses			
Operating costs to works programs	За	(23,305)	(25,373)
Amortisation of leased assets	Зс	(86)	(63)
Depreciation	3b	(294)	(262)
Administration expenses	3d	(1,176)	(821)
Interest		(18)	(6)
Occupancy expenses		(169)	(122)
Total Expenses		(25,048)	(26,647)
Net result		(978)	(256)

The accompanying notes form part of these financial statements.
Balance Sheet as at 30 June 2006

	Note	2006	2005 ¢(000
Acceta		\$ 000	\$ 000
CUDDENT ACCETS			
Connent ASSETS Cash and cash equivalents	Δ	8 102	8 357
Receivables	5	1.261	865
Prepayments	-	104	156
TOTAL CURRENT ASSETS		9,467	9,378
NON-CURRENT ASSETS			
Property, plant and equipment	6	1,471	1,329
TOTAL NON-CURRENT ASSETS		1,471	1,329
TOTAL ASSETS		10,938	10,707
Liabilities			
CURRENT LIABILITIES			
Payables	7	5,594	4,469
Interest bearing liabilites	8	77	63
Employee Benefits	9	448	395
TOTAL CURRENT LIABILITIES		6,119	4,927
NON-CURRENT LIABILITIES			
Interest bearing liabilities	8	103	77
Employee Benefits	9	56	65
TOTAL NON-CURRENT LIABILITIES		159	142
TOTAL LIABILITIES		6,278	5,069
NET ASSETS		4,660	5,638
Fauity			
Contributed equity	11	1 131	1 121
Retained Surplus	11	4,134	4,134
Reserve	13	526	1,504
TOTAL EQUITY		4,660	5,638

Statement of Recognised Income and Expense for the year ended 30 June 2006

	Note	<mark>2006</mark> \$'000	<mark>2005</mark> \$'000
Opening Equity Balance Net result for the period		5,638 (978)	5,894 (256)
Closing Equity Balance		4,660	5,638

The accompanying notes form part of these financial statements.

Cash Flow Statement for the Financial Year ended 30 June 2006

	Note	2006	2005
Cook Elses Essen On easting Astivities		\$'000	\$'000
Cash Flow From Operating Activities			
Government Contributions		24,887	28,162
Payments to suppliers and employees		(25,208)	(28,303)
GST remitted to Australian Tax Office		(256)	(1,091)
Interest received		535	541
Other Revenue		258	1,325
Net cash provided by (used in) operating activities	18b	216	634
Cash Flow From Financing Activities			
Proceeds from Contributed capital		2,060	1,595
Contributed capital paid		(2,060)	(1,595)
Borrowings repaid		(56)	(52)
Net cash provided by (used in) financing activities		(56)	(52)
Cash Flow From Investing Activities			
Proceeds from sale of property, plant and equipment		58	262
Payment for property, plant and equipment		(473)	(697)
Net cash provided by (used in) investing activities		(415)	(435)
Net (decrease) / increase in cash held		(255)	147
Cash at beginning of year		8,357	8,210
Cash at end of year	18a	8,102	8,357

The accompanying notes form part of these financial statements.

Note 1: Significant Accounting Policies

(a) Basis of Accounting

General

This financial report of Goulburn Broken Catchment Management Authority is a general purpose financial report that consists of an Operating Statement, Balance Sheet, Statement of Recognised Income and Expense, Cash Flow Statement and notes accompanying these statements. The general purpose financial report complies with Australian equivalents to International Financial Reporting Standards (A-IFRS), other authoritative pronouncements of the Australian Accounting Standards Board, Urgent Issue Group Interpretations and the requirements of the Financial Management Act 1994 and applicable Ministerial Directions.

This financial report has been prepared on an accrual and going concern basis.

The financial report has also been prepared under the historical cost convention, except where specifically stated in Note 1(d).

Accounting Policies

Unless otherwise stated, all accounting policies applied are consistent with those of the prior year. Where appropriate, comparative figures have been amended to accord with current presentation and disclosure made of material changes to comparatives.

Classification between current and non-current

In the determination of whether an asset or liability is current or non-current, consideration is given to the time when each asset or liability is expected to be realised or paid. The asset or liability is classified as current if it is expected to be turned over within the next twelve months, being the Authority's operational cycle.

Rounding

Unless otherwise stated, amounts in the report have been rounded to the nearest thousand dollars.

Application of AASB 1 First-Time Adoption of Australian Equivalents to International Financial Reporting Standards

These financial statements are the first Goulburn Broken Catchment Management Authority financial statements to be prepared in accordance with AIFRSs. AASB 1 *First-Time Adoption of Australian Equivalents to International Financial Reporting Standards* has been applied in preparing these financial statements. Financial statements of Goulburn Broken Catchment Management Authority until 30 June 2005 had been prepared in accordance with previous Australian Generally Accepted Accounting Principles (AGAAP). AGAAP differs in certain respects from AIFRS. However when preparing the financial statements for the year ended 30 June 2006 no accounting or valuation methods under AGAAP were required to be amended to comply with AIFRS.

(b) Revenue Recognition

Government grants are brought to account on the earlier of receipt or the right to receive the contributions. The full grant receivable is reflected as revenue. Instalment receipts on the grant are credited to the receivable account. Consequently, at year-end outstanding instalments on these grants are reflected as receivable from Government.

The value of all goods and services received free of charge are recognised as revenue when the Authority gains control of them. The benefits derived from these goods and services are recorded at their fair values in the financial statements.

Grants and contributions for capital works from all sources are disclosed in the operating statement as operating revenue as these grants and contributions relate to expenditure on works written off in the year the expenditure is incurred. Any grants and contributions received from the Victorian State Government which the relevant Ministers have indicated are in the nature of owners' contributions, are accounted for as Equity – Contributed Capital. Gains or Losses on disposal of non-current assets are calculated as the difference between the gross proceeds on sale and their written down value.

Interest and Rents

Interest and Rentals are recognised as revenue when earned or the service provided.

Notes to the Financial Statements for the year ended 30 June 2006

(c) Borrowing Costs

Borrowing Costs are recognised as expenses in the period in which they are incurred.

Borrowing costs include interest on finance lease charges.

(d) Recognition and Measurement of Assets

Acquisition

The purchase method of accounting is used for all acquisitions of assets. Cost is measured as fair value of the assets given, at the date of exchange plus costs directly attributable to the acquisition.

Assets acquired at no cost or for nominal consideration by the Authority are recognised at fair value at the date of acquisition.

Property, plant and equipment represent non-current assets comprising buildings, plant, equipment and motor vehicles, used by the Authority in its operations. Items with a cost or value in excess of \$1,000 and a useful life of more than one year are recognised as an asset. All other assets acquired are expensed.

Repairs and Maintenance

Routine maintenance, repair costs and minor renewal costs are expensed as incurred.

Leases

Leases of fixed assets, where substantially all the risks and benefits incidental to the ownership of the asset, but not the legal ownership, are transferred to the Authority, are classified as finance leases. Finance leases are capitalised, recording an asset and a liability equal to the present value of the minimum lease payments, including any guaranteed residual values. Leased assets are amortised on a straight line basis over their estimated useful lives where it is likely that the Authority will obtain ownership of the asset at the end of the lease. Lease payments are allocated between the reduction of the lease liability and the lease interest expense for the period.

Lease payments for operating leases, where substantially all the risks and benefits remain with the lessor, are charged as an expense in the periods in which they are incurred.

Leasehold improvements

Leasehold improvements are recognised at cost and are amortised over the unexpired period of the lease or the estimated useful life of the improvement, whichever is the shorter. At balance date, leasehold improvements are amortised over a 6 year period.

Impairment of Assets

All assets are assessed annually for indicators of impairment.

If there is an indication of impairment, the assets concerned are tested as to whether their carrying value exceeds their recoverable amount. Where an asset's carrying amount exceeds its recoverable amount, the difference is written-off by a charge to the operating statement.

The recoverable amount for most assets is measured at the higher of depreciated replacement cost and fair value less costs to sell. Recoverable amount for assets held primarily to generate net cash inflows are measured at the higher of the present value of future cash flows expected to be obtained from the asset and fair value less costs to sell. It is deemed that, in the event of the loss of an asset, the future economic benefits arising from the use of the asset will be replaced unless a specific decision to the contrary has been made.

(e) Depreciation and Amortisation of Non-Current Assets

Where assets have separate identifiable components that have distinct useful lives and/or residual values, a separate depreciation rate is determined for each component.

Depreciation is calculated using the straight-line method to allocate their costs, net of their residual values, over their estimated useful lives, commencing from the time the asset is held ready for use. The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date. Major depreciation rates used are listed below and are consistent with prior year, unless otherwise stated:

Asset Class	Depreciation rate
Buildings	2.5%
Plant & Equipment	10% to 40%
Motor Vehicles	20%

(f) Cash and Cash Equivalent Assets

For the purposes of the Cash Flow Statement, cash and cash equivalents include cash on hand, deposits held at call with financial institutions, other shortterm, high liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts. Bank overdrafts are shown within interest bearing liabilities on the balance sheet.

(g) Receivables

Receivables are brought to account at their fair value. Receivables due from the government are due within 14 days, other receivables are due within 30 days. Collectability of debtors is reviewed on an ongoing basis. Debts which are known to be uncollectible are written off. A provision for doubtful debts is recorded when some doubt as to collection exists.

(h) Trade and Other Payables

These amounts represent liabilities for goods and services provided by the Authority prior to the end of the financial year, which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

(i) Employee Benefits

(i) Employee Benefits

Provision is made for benefits accruing to employees in respect of wages and salaries, annual leave and long service leave when it is probable that settlement will be required and they are capable of being measured reliably. No provision is made for sick leave as it is non-vesting.

Provisions made in respect of employee benefits expected to be settled within 12 months are measured at their nominal values, using the remuneration rate expected to apply at the time of settlement.

Provisions made in respect of employee benefits which are not expected to be settled within 12 months are measured at their present values of the estimated future cash outflows to be made by the Authority, in respect of services provided by employees up to the reporting date.

(ii) Superannuation

The amount charged to the operating statement in respect of superannuation represents the contributions made by the Authority to the superannuation plan in respect to the current services of current entity staff. Superannuation contributions are made to the plans based on the relevant rules of each plan.

(iii) Employee Benefit On-Costs

Employee benefit on-costs, including payroll tax, are recognised and included in employee benefit liabilities and costs when the employee benefits to which they relate are recognised as liabilities.

(j) Goods and Services Tax

Revenues, expenses and assets are recognised net of goods and services tax (GST), except where the amount of GST incurred is not recoverable from the Australian Taxation Office (ATO). In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or as part of an item of expense.

Receivables and payables are stated inclusive of GST. The net amount of GST recoverable from, or payable to, the ATO is included as a current asset or liability in the balance sheet.

Cash flows arising from operating activities are disclosed in the Cash Flow Statement on a gross basis – i.e., inclusive of GST. The GST component of cash flows arising from investing and finance activities which is recoverable or payable to the taxation authority is classified as operating cash flows.

(k) Contributed Capital

Grants and contributions received from the Victorian State Government which were originally appropriated by the Parliament as additions to net assets or where the Minister for Finance and the Minister for Environment have indicated are in the nature of owners' contributions, are accounted for as Equity – Contributed Capital.

(I) Changes in Accounting Policy

The accounting policies are consistent with those of the previous year, unless stated otherwise.

		10,026	12,051
- Other		298	142
- Enterprise Bargaining Wage Supplementation		53	41
- Waterway Guidelines		21	-
- Murray River Regional Flood Study		60	-
- Recreational Fish Licence		68	195
- Broken Boosey Conservation Management Network		145	-
- Victorian Water Trust & White paper		1,184	1,296
- Victorian Water Trust & Healthy Waterways		1,380	-
- Victorian Water Trust & Water Smart Farms Initiative		800	1,000
- Tariff Replacement Funding		132	1,930
- Sustainable Irrigated Agriculture		395	1,465
- Stressed Rivers / Healthy Rivers Initiative		1,630	2,555
- Second Generation Landcare		541	541
- Salinity Infrastructure		1,030	1,495
- River Health & Water Quality		860	715
- Pest Management		-	50
- Lake Mokoan Study		47	41
- Lower Goulburn Levees		-	250
- Environmental Flows Monitoring & Assessment		132	100
- Floodplain administration		240	-
- Catchment Planning		1,010	235
State Government of Victoria			
a. Government Contributions:			
		24,070	20,391
		24.070	26 201
Other revenues from ordinary activities		931	835
- Gain on disposal of property plant and equipment		11	20
Non-operating activities			
		920	815
— Other		72	105
— Waterways Research & Development		-	30
- Seedbank Funding		47	36
- Rent Received		10	3
- Workcover		33	-
- Contributions from Third Parties		199	182
- Interest		559	459
Revenues from Non-Operating Activities			
— Government Contributions	2a	23,139	25,556
Operating activities			
Note 2: Revenues		\$'000	\$'000
	Note	2006	2005

(c) Amortisation of leased assets		86	63
Total depreciation		294	262
- motor vehicles		253	213
- plant & equipment		38	45
- buildings		3	4
(b) Depreciation of non-current assets			
		23,305	25,373
- Other		1,165	2,013
- Lake Mokoan study		17	19
- Water Quality & Environmental Flows		1,142	640
- Bushcare / Native Vegetation		1,123	1,073
- Water for Growth – other		108	107
- Nutrient Removal		36	140
- Capital Salinity Grants		171	163
- Drainage Reuse		726	607
- Automatic Irrigation		72	93
- Whole Farm Plans		254	278
- Community Surface Drains		52	154
- Environmental Management Grants		1,464	1,382
- Grants		22	10
- Regional Catchment Strategy Review		22	13
- Jandcare Support		19/	470
- Liouupiaii VVOIKS - Second Generation Landcare		394 310	435 475
- Floodplain Auffillistration Eloodplain Works		238	1/4
- Devolved Grants		3,155	3,853
- Sustainable Irrigated Agriculture		1,391	1,445
- Salinity Infrastructure		5,502	5,226
- Waterways		5,769	6,817
(a) Operating Costs to WORKS Programs			
(a) Operating Costs to Works Programs			
Net result for the year has been determined after:			
Note 3: Expenses			
		20,100	20,000
		23 130	25 556
- National Action Plan		10,650	11,246
Victorian State & Commonwealth Government			
Murray Darling Basin Commission		391	181
		2,072	2,078
National Landcare Program		53	208
- Other AFFA		325	60
- Regional grants		1,148	1,248
- Facilitators & Coordinators		546	562
Natural Heritage Trust			
Commonwealth Government			
Note 2: Revenues (continued)			
		\$1000	\$ 000
	Note	2006	2005

	Note	<mark>2006</mark> \$′000	<mark>2005</mark> \$'000
Note 3: Expenses (continued)			
(d) Administration expenses			
- Implementation Committees		52	50
- Audit fees – Internal Audit		2	10
- Auditor General		8	8
- Board Governance		193	15/
- Salaries and on costs - Other		819 102	4/3
		102	125
		1,176	821
In 2005-06, additional funding was received specifically for administration Therefore additional costs have been charged to administration, rather the specific projects as in the prior year.	n costs. nan to		
(e) Employee related expenses			
Total employee related expenses		3,615	3,044
These expenses have been allocated to:			
(i) Operating costs to works programs		2,796	2,571
(ii) Administration expenses		819	473
Note 4: Cook And Cook Equivalents			
Note 4: Cash And Cash Equivalents		0.400	0.057
Cash at bank and on hand		8,102	8,357
		8,102	8,357
All of these funds are restricted in that they are held to be spent on a range of programs which the Authority currently has underway. (Note 14e)			
Note 5: Receivables			
Government Grants Receivable		626	111
Net GST amount due from Australian Tax Office		311	457
Trade Debtors		209	206
Accrued Interest		118	94
Taritts and Charges		12	12
Provision for doubtful debts		(15)	(15)
		1,261	865

Notes to the Financial Statements for the year ended 30 June 2006

	Note	<mark>2006</mark> \$'000	<mark>2005</mark> \$'000
Note 6: Property Plant And Equipment			
Buildings at:			
Cost		43	43
Less accumulated depreciation		(32)	(29)
Total Buildings		11	14
Plant and equipment at cost		674	388
Less accumulated depreciation		(336)	(298)
		338	90
Motor Vehicles at cost		1,294	1,190
Less accumulated depreciation		(440)	(229)
		854	961
Office and Computer Equipment acquired under finance lease		223	226
Accumulated amortisation		(104)	(111)
		119	115
Total Plant and equipment		1,322	1,180
Dowdle Swamp Floodway at cost		170	170
Less accumulated depreciation		(21)	(21)
Total floodway		149	149
Total Property, Plant and Equipment		1,471	1,329

a) Movements in Carrying Amounts:

Movement in the carrying amounts for each class of property, plant and equipment between the beginning and the end of the current financial year

	Dowdle Swamp		Plant and	Motor	Equipment Under	
	Floodway \$'000	Buildings \$'000	Equipment \$'000	Vehicles \$'000	Finance/Lease \$'000	Total \$′000
Balance at the beginning of	140	1.4	00	001	115	1 000
the year	149	14	90	961	115	1,329
Additions	-	-	285	188	96	569
Disposals	-	-	-	(41)	(6)	(47)
Depreciation expense	-	(3)	(37)	(254)	-	(294)
Amortisation	-	-	-	-	(86)	(86)
Carrying amount at						
the end of the year	149	11	338	854	119	1,471

Notes to the Financial Statements for the year ended 30 June 2006

	Note	<mark>2006</mark> \$'000	<mark>2005</mark> \$'000
Note 7: Payables			
Trade creditors		2,582	1,255
Accruals		3,012	3,214
		5,594	4,469
Note 9 Internet Decring Lickilities			
Note 8: Interest bearing Liabilities			
CURRENT			
Finance Lease Liability	14c	77	63
NON-CURRENT			
Finance Lease Liability	14c	103	77
		180	140
Note 9: Employee Benefits			
CURRENT			
Employee entitlements (i)		448	395
NON-CURRENT			
Employee entitlements (i)		56	65
a. Aggregate employee entitlement liability		504	460

b. Number of employees at year end

 (i) All annual leave is treated as a current liability. Long Service Leave entitlement representing 7 years plus continuous service is also treated as a current liability. Long Service Leave entitlement representing less than 7 years continuous service is treated as a non-current liability.

Note 10: Superannuation

Contributions

The Authority contributes in respect of its employees, to the following principal superannuation schemes:

- Vision Super
 - Government Superannuation Office
 - Colonial

Contribution details are shown in the following table:

	Type of Scheme	Rate %	2006 \$′000	2005 \$'000
Colonial	Accumulation	9	12	12
Government Superannuation Office	Accumulation	Various	42	36
Vision Super	Defined Benefits	9.25	8	7
Vision Super	Accumulation	9	219	160
Other Funds	Accumulation	9	112	130
Total contributions to all Funds			393	345

As at balance date, there were contributions payable of \$4,603 (2005 \$Nil).

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	Note	<mark>2006</mark> \$'000	<mark>2005</mark> \$'000
Note 11: Contributed Equity			
Balance at the beginning of the reporting period		4,134	4,134
Contributed capital received		2,060	1,595
Contributed capital paid		(2,060)	(1,595)
Balance at the end of the reporting period		4,134	4,134

In accordance with Financial Reporting Direction (FRD) 2 - Contributed Capital, issued by the Department of Treasury and Finance, grants totalling \$2,060,000 (2005: \$1,594,780) have been accounted for as a contributed capital contribution for capital works undertaken by Goulburn-Murray Water. Both the amount received from the Department and the amount paid to Goulburn-Murray Water has been accounted for through the Authority's contributed equity account. In the 2002/03 financial year, the Authority complied with the requirements of UIG Abstract 38 - Contributions by Owners Made to wholly-owned Public sector Entities, AFRB 39 Accounting for Contributed Capital and AFRB 40 Establishment of Opening Balances and Formal Designation for Contributed Capital. As a result an amount of \$2.25 million was transferred from accumulated surpluses as at 1 July 2001 and is now included in the opening balance of contributed equity. As the accumulated surpluses were derived from projects funded from various sources, the amount transferred represents contributed capital from the respective funding sources. Further, these funds are the balance of funding on grants programs carried forward to be spent in future years' works programs. Accordingly, in future years, expenditure on programs may result in a reduction in total equity of the Authority. The Authority made the transfer solely to comply with UIG 38 and AFRB 39&40. **Note 12: Retained Surplus** Balance at the beginning of the reporting period Net result for the year (978) (256)Transfer from / (to) reserves 978 256 Balance at the end of the reporting period -_ Note 13: Reserve COMMITTED FUNDS RESERVE Balance at the beginning of the reporting period 1,504 1,760 Net transfers (to) / from retained surplus (978) (256)Balance at the end of the reporting period 526 1,504

The purpose of the Committed Funds Reserve is to hold funds allocated for expenditure on works programs which have either not yet commenced or have not been completed at balance date. The Committed Funds Reserve is necessary as grant monies are taken to revenue as soon as the Authority has the right to receive those funds and generally there is a time lag between the right to receive the funds and the commencement of the associated works program.

	Note	<mark>2006</mark> \$'000	<mark>2005</mark> \$'000
Note 14: Commitments			
a. Operating Lease Commitments			
At balance date the Authority had non-cancellable operating leases contracted for but not capitalised in the financial statements payable as follows:			
- not later than 1 year		128	108
- later than 1 year but not later than 5 years		699	534
- later than 5 years but not later than 7 years		37	292
		864	934
b. Other Commitments			
At balance date the Authority has commitments for works expenditure payable as follows:			
- not later than 1 year		401	303
c. Finance Lease Commitments			
At balance date the Authority had finance lease commitments payable as follows:			
- not later than 1 year		83	69
- later than 1 year but not later than 5 years		109	80
		192	149
Less future finance charges		(12)	(9)
		180	140
Current Liability	8	77	63
Non-current Liability	8	103	77
		180	140
d. Capital Commitments			
At balance date the Authority has commitments for capital expenditure payable as follows:			
- not later than one year		-	174

e. Compliance Statement - Contributions subject to restrictions

The following table reflects major program funding contributions which are subject to restrictions on expenditure profiles which may only be varied with the agreement of the funding body.

	Revenue recognised \$′000		Outgoings \$′000	Unexpended Program Contributions	Outstanding Program Commitment	Variance	
Program	Funds b/f 1 July 2005	Funds Current Year	Total	Current Year	Funds c/f 1 July 2006	\$'000	\$'000
Native Vegetation	1,068	1,975	3,043	1,657	1,386	1,406	-20
Catchment Planning & Investment	452	3,117	3,569	3,139	430	378	52
Salinity & Soils	-79	2,444	2,365	2,118	247	1,661	-1,414
Sustainable Irrigation	2,983	8,202	11,185	10,886	299	1,657	-1,358
River Health	1,214	8,332	9,546	7,248	2,298	3,040	-742
Total	5,638	24,070	29,708	25,048	4,660	8,142	-3,482

Variances under the salinity & soils, sustainable irrigation and River Health programs are in respect of grants approved in line with a two-year approval cycle which shall be funded from 2006/07 program funding. Indicative 3-year NAP funding allocations are advised to the Authority to enable programs to be accommodated within the 3-year cycle rather than limited only to the funding available for the particular year.

Note 15: Events Subsequent To Reporting Date

There are no reportable events subsequent to reporting date.

Note 16: Responsible Persons Related Disclosures

(a) Responsible Persons

The names of persons who were responsible persons at anytime during the financial year were:

Minister for Water and Minister for Environment Honourable John Thwaites 1 July 2005 - 30 June 2006

There were numerous transactions between the Authority and the Department of Sustainability and Environment during the year under normal commercial terms and conditions.

Position		Appointed	Position		Appointed
Board Member	D Cummins	1 July 2003	Chair	S Mills	14 May 2002
Board Member	J Pettigrew	1 July 2003	Board Member	C Scott *	1 July 2000
Board Member	L Gunter	1 July 2003	Board Member	A Fox	1 July 1997
Board Member	C Jones	1 July 2003	Board Member	C Madden	1 July 1997
Board Member	Y Davies	1 July 2000	Board Member	G Williams	1 July 2003
Board Member	K Ritchie	4 February 2000	Board Member	B Thompson	19 January 2004
CEO	W J O'Kane	4 October 1997	Acting CEO	S D Gibney	3-20 January 2006 &
					17 February – 10 March 2006

* Denotes Deputy Chair

Notes to the Financial Statements for the year ended 30 June 2006

(b) Remuneration of Responsible Persons

The number of responsible persons whose remuneration from the Authority was within the specified bands are as follows:

	2006	2005
	No.	No.
\$1 - \$9,999	9	10
\$10,000 - \$19,999	1	1
	10	11

The total remuneration of responsible persons referred to in the above bands was \$95,920 (2005 \$104,640) which includes \$7,920 (2005 \$8,640) paid in Superannuation Contributions.

Brian Thompson and Kevin Ritchie are representatives of the Department of Primary Industries and Department of Sustainability and Environment respectively. They receive no remuneration from the Authority.

The relevant information of the Chief Executive Officer is reported under the Executive Officer's Remuneration The relevant Minister's remuneration is reported separately in the financial statements of the Department of Premier and Cabinet.

(c) Remuneration of Executives

The number of executive officers, other than responsible persons included under "Remuneration of Responsible Persons" above, whose total remuneration exceeded \$100,000 during the reporting period are shown below in their relevant income bands:

	2006	2005
Remuneration	No.	No.
\$100,000 - \$109,999	3	1
\$110,000 - \$119,999	2	1
\$120,000 - \$129,999	1	-
\$150,000 - \$159,999	-	1
\$170,000 - \$179,999	1	-

The total remuneration including superannuation of executives whose remuneration was greater than \$100,000 referred to in the above bands was \$858,522 (2005: \$379,127).

	Total Re	muneration	Base Ren	nuneration
Remuneration	2006	2005	2006	2005
\$100,000 - \$109,999	\$327,581	\$105,974	\$317,111	\$97,810
\$110,000 - \$119,999	\$231,365	-	\$213,952	-
\$120,000 - \$129,999	\$126,314	\$115,151	\$112,280	\$101,980
\$170,000 - \$179,999	\$173,262	\$158,002	\$154,175	\$139,718
TOTAL	\$858,522	\$379,127	\$797,518	\$339,508

(d) Other Transactions

- Loans: There were no loans in existence by the Authority to responsible persons or related parties at the date of this report.
- **Shares:** There were no share transactions in existence between the Authority and Responsible Persons and their related parties during the financial year.
- **Other:** Don Cummins, Yvonne Davies, Lyn Gunter and Graeme Williams were councillors with the Shire of Mansfield, Moira, Murrindindi and Strathbogie respectively. During the year, the Authority from time to time had dealings with those Municipalities on normal commercial terms and conditions.

Don Cummins and John Pettigrew are Board Members of Goulburn-Murray Water and, from time to time, the Authority had dealings with Goulburn-Murray Water on normal commercial terms and conditions. Catherine Scott is a Board member of Goulburn Valley Water and the Authority had dealings with Goulburn Valley Water on normal commercial terms and conditions.

An environmental management incentive for \$32,096.75 was paid for works carried out on property in which Ailsa Fox has an interest. The incentive was a payment in accordance with the Authority's grant incentive scheme.

Other than travel reimbursements there were no other transactions between the Authority and Responsible Persons and their related parties during the financial year.

	Board Meetings	Compliance Committee	Audit Committee	Remuneration Committee
	10 Meetings Held	5 Meetings Held	6 Meetings Held	4 Meetings Held
Don Cummins	9	-	4	-
Yvonne Davies	8	-	-	4
Ailsa Fox	8	-	6	-
Lyn Gunter	6	-	6	-
Charles Jones	9	5	-	-
Craig Madden	9	5	-	4
Stephen Mills *	10	-	4	3
John Pettigrew	10	-	5	3
Kevin Ritchie	8	4	-	-
Catherine Scott	8	-	6	4
Brian Thompson	8	4	-	-
Graeme Williams	9	5	-	-

(e) Board Members Attendance Record at Meetings

The Chairman, Stephen Mills is ex-officio of all Board Committees and is able to attend all meetings.

Note 17: Economic Dependence

To attain its goals as detailed in its Regional Catchment Strategy, the Authority continues to be dependent upon future funding commitments from both the State and Federal Governments.

Notes to the Financial Statements for the year ended 30 June 2006

Note 18: Cash Flow Information	2006 \$	2005 \$
(a.) Reconciliation of Cash		·
Cash at the end of the financial year as shown in the		
cash flow statement is reconciled to the related		
items in the balance sheet as follows:		
Cash at bank and on hand (Note 4)	8,102	8,357
	8,102	8,357
(b.) Reconciliation of cash flow from net result for the year		
Surplus / (Deficit) from ordinary activities	(978)	(256)
Non-cash flows in deficit from ordinary activities		
Depreciation	294	262
Amortisation	86	63
Net loss (gain) on disposal of non-current assets	(11)	(20)
Changes in assets and liabilities		
(Increase) / decrease in receivables	(723)	(150)
(Increase) / decrease in prepayments	52	(144)
Increase / (decrease) in provisions	44	55
Increase/(decrease) in payables	1,452	824
Cash flows from operations	216	634

(c.) Property plant and equipment: During the financial year, the Authority acquired computer equipment with an aggregate fair value of \$96,048 (2005 \$56,283) by means of finance leases. These acquisitions are not reflected in the cash flow statement.

Note 19: Financial Instruments

(a.) Interest Rate Risk

The Authority's exposure to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in market interest rates and the effective weighted average interest rates on those financial assets and financial liabilities, is as follows:

	Weighted Average Effective Interest Rate		Floating Interest Rate		Fixed Interest Bearing		Non-Interest Bearing	
Financial Assets	2006 %	2005 %	2006 \$	2005 \$	2006 \$	2005 \$	2006 \$	2005 \$
Cash at bank	5.61	5.52	8,102	8,357	_	_	-	_
Receivables	n/a	n/a	-	_	_	_	1,261	865
Total Financial Assets			8,102	8,357			1,261	865
Financial Liabilities			-					
Payables	n/a	n/a	-	_	-	-	5,594	4,469
Interest Bearing Liabilities	5.78	4.35	-	_	180	140	-	-
Total Financial Liabilities	_	_	-	_	180	140	5,594	4,469

(b.)Credit Risk

The maximum exposure to credit risk, excluding the value of any collateral or other security, at balance date to recognised financial assets is the carrying amount of those assets, net of any provisions for doubtful debts, as disclosed in the statement of financial position and notes the financial statements.

The Authority does not have any material credit risk exposure to any single debtor or group of debtors under financial instruments entered into by the Authority.

(c.) Net Fair Values

For all financial assets and financial liabilities the net fair value approximates their carrying value. No financial assets and financial liabilities are readily traded on organised markets.

The aggregate net fair values and carrying amounts of financial assets and financial liabilities are disclosed in the statement of financial position and in the notes to the financial statements.

(d.) Terms, Conditions and Accounting Policies

The Authority's accounting policies including the terms and conditions of each class of financial asset, financial liability and equity instrument, both recognised and unrecognised at balance date, are as follows:

Recognised Financial Instruments	Balance Sheet Notes	Accounting Policies	Terms and Conditions
(i) Financial Assets Receivables	5	Debtors are carried at the nominal amounts	Credit is allowed for a 30 day term. Tariff Charges remain a charge on the property
(ii) Financial Liabilities Payables	7	Creditors and accruals are recognised for future amounts to be paid in respect of goods and services received, whether or not billed to the Authority.	Settlement of creditors is normally effected within a 30 day term.
(iii) Interest Bearing Liabilities Finance Leases	8	Leases meeting the definition of Finance Leases are capitalised, recording an asset and a liability equal to the present value of the minimum lease payments, including any guaranteed residual values.	Lease payments made on a quarterly basis, are allocated between the reduction of the lease liability and the lease interest expense for the period.

Note 20: Authority Details

The registered office of the Authority and principal place of business is: 168 Welsford Street, Shepparton 3630, Victoria.



The Goulburn Broken Catchment Management Authority gratefully acknowledges the support of the Natural Heritage Trust, the National Action Plan for Salinity and Water Quality, the Victorian and Australian Governments and landowners of the Catchment who invested millions of dollars in protecting and enhancing natural resources in 2005-2006.

Photo acknowledgements

Tony Kubeil, Ray Sizer - Shepparton News, Gordon O'Brien, Keith Ward, Poppé Davis, Wayne Tennant, Peta Mazur, Terry Batey, Anna Humphris, and Lisa McKenzie

Prepared by: Impress Publicity Design: SASI Marketing Printing: Prominent Group