

# 2008 Annual Report



#### Contents

Mary River Catchment Coordinating Committee Delegates 2007 - 2008	4
MRCCC Staff 2007-2008	4
Chairman's Report - Harry Jamieson	5
Western Mary Catchments Sustainable Grazing Landscapes Project Activities (07-08)	7
Field-days & Workshops	8
Property Extension Activities	9
Sustainable Grazing Implementation Projects	9
On-ground Projects In-kind Contributions (2006 – 2008)	9
Resource Assessment	9
Mary Program of Rivercare (2005 - 2008)	10
Rivercare Project Monitoring (2006 & 2007)	11
Living with Threatened Species – Eva Ford	
Frogging on	13
Butterfly activities	13
Multi Species Prioritisation project	14
On-ground works	14
Waterwatch - Kenilworth and Gympie/Amamoor	15
Kids Club	15
Waterwatch, Wetlands and GIS- Dale Watson	16
Waterwatch - Upper Mary, Widgee Wide Bay and Munna	16
Wetland Monitoring - August 2008	19
MRCCC Geographic Information System (GIS) Capabilities	21
Catchment Officer Report - Steve Burgess	21
Schools/education	21
WaterWatch networks	21
Environmental Protection and Biodiversity Conservation (EPBC) Act	22
Sand and Gravel Extraction	22
New Water Infrastructure, Regulation and Policy	23
Proposed dam at Traveston Crossing.	23
Lake Macdonald Catchment Care Group	25
Progress of the biological control and ecological research on Cabomba	25
Noosa Festival of Water	26
Mary River Festival	
Regional Liaison for BMRG	
The South East Queensland Rainforest Recovery Program	
Living with Wildlife Forum	
MRCCC Website	
Gympie District FarmFLOW Project - Profitable Farms – Healthy Catchments	
2007 – 2008 Audited Financial Statements	

#### <u>Mary River Catchment Coordinating Committee Delegates 2007 – 2008</u>

Interest Sector	Name	Position
Beef/Grazing	Harry Jamieson	Chair
Dairying	Rob Priebe	
Dept of Primary Industries & Fisheries	Graeme Elphinstone	
Dept of Natural Resources & Water	Alan Key	
Education	Mark Cridland	
Environment	Tim Thornton	
Extractive Industries	Vacant	
Fishing	Vince Collis	
General Community Lower Mary	Tanzi Smith	
General Community Upper Mary	Dave Sands	
Horticulture	Jim Buchanan	Vice-Chair
Irrigation	Brian Thomas	
Landcare, Lower Mary	Chris deVere	
Landcare, Upper Mary	Phillip Moran	
Local Government Lower Mary	Cr Debbie Hawes	
Local Government Middle Mary	Cr Julie Walker/Cr Graham	
	Engeman	
Local Government Upper Mary	Cr Russell Green	
Rural Women	Rosemary Burnett	
Special Member	Nai Nai Bird	
Life Member	Margaret Thompson	Secretary
Special Member	Lin Fairlie	
Special Member	Angus Hutton	
Special Member	Paul Marshall	Treasurer
Sugar	Trevor Crook	
Western Mary Catchments Community	James Hansen	
Community		

#### MRCCC Staff 2007-2008

Brad Wedlock	Operations Manager
Eva Ford	Catchment Officer Threatened Species
Dale Watson	Catchment Officer from May 08
Steve Burgess	Catchment Officer
Ruth Hutchison	Noosa Festival of Water Coordinator
Glenda Pickersgill	Water Quality Improvement Project Officer
Peter McAdam	Temporary Catchment Officer
Debbie Seal	Regional Liaison Officer to June 2008 and
	Administration

Front cover photo: New Waterwatch volunteers, Gabriel, Kathleen, Moya and Rory Dennis on the banks of the Coonoongibber Creek

#### Chairman's Report - Harry Jamieson

This will be my last opportunity as your Chairman and fellow member of the MRCCC to report on our achievements over the past 12 months. Both I and long serving Deputy Chairman, Jim Buchanan will be leaving the Executive after this AGM. Fortunately for MRCCC, Jim will remain on the Committee as the Horticulture Delegate. We are all very grateful for the years he has contributed to the Executive, and the countless hours Jim spends pursuing the interests of the MRCCC.

The Traveston Dam saga continues. As mentioned in last year's report, many hours of work have been spent by staff and Committee members in preparing comprehensive submissions and comments to a range of reports and forums. The frustrating and annoying aspect of this time consuming effort is that we and all the other volunteers do not receive one cent for our work in trying to preserve the Mary Catchment. Contrast that with the Dam proponents who have access to unlimited resources to employ the myriad of spin doctors to get their message across. With the estimated cost of the proposed dam to be in excess of \$2 Billion and rising every year, one would think the Queensland Treasurer would be having second thoughts about spending that amount of taxpayers' money when alternatives at a fraction of the cost are available.

With a range of new water supply initiatives and monumental change proposed for the catchment, the MRCCC is looking at avenues to review and update the Mary River & tributaries Rehabilitation Plan, to ensure that our work is carried out strategically, and that the Plan remains a relevant guiding document for the organisation.

Our long term accommodation situation unfortunately has not been solved and the search for permanent premises continues. Our submission to the Commonwealth and State Governments for land on the Bruce Highway was not received favourably so other alternatives are being explored. Staff had to vacate the premises in Nash St owing to the sale of the building and have relocated to the former Cooloola Shire Council depot in Tozer Park Rd, where there is sufficient space for our Resource Centre and staff, Waterwatch lab and ample parking. Our thanks go to the expanded Gympie Regional Council for granting us a 4 year

lease to occupy these premises until June 2012. I am sure the need for permanent accommodation will be high on the incoming Executive's agenda for 2008-2009.

The three amalgamated shires became operational earlier this year. To ensure that the new councillors are aware of our activities we have made presentations to the Sunshine Coast and Gympie Regional Councils detailing what we do and what we have achieved. A presentation to the Fraser Coast Regional Council will be undertaken as soon as arrangements can be made. Delegates from all three councils have been appointed to the general committee of the MRCCC.



L to R: Brad Wedlock, Dale Watson, Steve Burgess, Eva Ford and Harry Jamieson. Photo courtesy of Peter & Bevly Hughes

As we move into 2009 with a new Federal Government and the traditional reshuffling of environment programs, I am reasonably confident that MRCCC will weather the storm, and be able to continue with our sustainable production including grazing, water quality and biodiversity projects. In recent months, MRCCC staff have prepared and submitted a number of applications for funding to local government, and to the federal government under the Caring for Country Program. Recently, MRCCC were advised that an application to the National Landcare Program for the "Supergraze" project was successful, the second largest NLP project of its kind in Australia. Engaging graziers in on-ground works to improve farm sustainability is core business for the MRCCC, and we are indebted to the Gympie District Beef Liaison Group and the Department of Primary Industries and Fisheries for their fantastic support of this project. This project also involves Burnett Catchment Care Association, Condamine Alliance and SEQ Catchments across Southern Queensland with funding managed through BMRG. Other applications recently approved include an application to the World Wide Fund for Nature for Wallum Frog surveys, Gympie Regional Council for Rivercare and Resource Monitoring, BMRG for Better Catchments on-ground works until the end of this year, and for extension services until the end of June next year.

Another initiative proposed by the MRCCC Executive this year was the establishment of a Consulting arm, which I am pleased to announce is now a reality. MRCCC Consulting has already undertaken a brief with Wetland Care Australia and is currently tendering for other works within the Mary Catchment. In this regard, our staff are a major asset to the organisation, collectively offering years of knowledge and experience in a wide range of environmental and ecological matters.

Our thanks once again go to our Operations Manager, Brad Wedlock. Brad has been with our organisation for many years and is now contemplating long service leave. Brad's knowledge of the Mary Catchment, his contacts fostered during 10 years of outstanding service and his calm and collected response to situations that invariably arise are attributes that are invaluable to our organisation. Our intrepid South American traveller and well known Catchment Officer, Dale Watson, returned safe and sound earlier this year and resumed duties in May. We were pleased to welcome Dale back as the work load was becoming untenable.

As community interest in preserving our endangered and threatened species increases year by year, our expert in this field, Eva Ford, has found her knowledge and extension skills to be in great demand. Eva's ability to mimic the calls of various frog species is quite remarkable. At present, Eva is touring Italy by bicycle and has tendered her apologies for her absence. Last word from Eva was "that all Italian drivers are completely mad on the road, no seat belts and weave all over the place!" We hope Eva returns safely.

Steve Burgess, who was recruited to replace Dale last year, has remained with us. His knowledge and experience on all facets of the detrimental effects of the dam proposal have been of immense value. Steve has represented MRCCC during various meetings and discussions with State and Commonwealth bureaucrats. His expertise has been acknowledged throughout the catchment and also by commonwealth and state public servants.

Thanks also to Glenda Pickersgill, who will continue monitoring for the Water Quality Improvement Project until the end of this year. Glenda has also assisted with preparation of a number of submissions and papers, contributing her extensive knowledge and skills to MRCCC. I would like to pay special tribute to our Administrator, Deb Seal, who keeps the wheels turning at the Resource Centre, assisting the Executive and staff with the running of our organisation. I would also like to acknowledge Ruth Hutchison's contribution to the organisation, and to the highly successful Noosa Festival of Water. Unfortunately for MRCCC, Ruth resigned earlier in the year, as she was already working two jobs. However, Ruth continues to offer her services on a voluntary basis from time to time.

Once again, we acknowledge the dedication and contribution of our network of waterwatch volunteers, some of whom have been regularly monitoring their waterway for over 5 years now, providing a wealth of data on the health of their local waterway. It was pleasing to see the end of the drought and the resultant stream flows which enabled more normal water testing to occur.

I must also thank Peter and Bevly Hughes, Rural Reporters, for their attendance at our meetings. Their reporting has certainly enabled us to present the work of the MRCCC to the wider community.

To my fellow Executive members, and to the outgoing committee, I express my appreciation and thanks for all your support during what has been some of the most difficult times for our organisation. In my opinion, the MRCCC is the leader in catchment management in Queensland and possibly Australia. May the next 14 years be as productive as the last. Harry Jamieson

#### Western Mary Catchments Sustainable Grazing Landscapes Project Activities (07-08)

#### **National Landcare Program**

The Western Mary Catchments Sustainable Grazing Landscapes project was successfully completed in June 2008 after 2 years of operation.

The Western Mary Catchments Sustainable Grazing Landscapes Project aimed to assist grazing landholders to improve the productivity and sustainability of their grazing management systems, and to integrate the management of wetlands and riparian zones into their property management planning process.

The project predominantly focused on the commercial and sub-commercial grazing enterprises of the Munna, Wide Bay and Widgee Creek subcatchments, and expanded in the 2<sup>nd</sup> year to include the Manumbar, Tansey and

Grazing Demographics of Western
Mary Catchment Project Participants

Commercial Unit

Small Area
Grazing
Landholder Unit

Sub-commercial
Unit

Glastonbury areas. Also included in the 2<sup>nd</sup> year of the project was the peri-urban grazing subcatchments (Grahams, Myrtle, Ooramera, Tanyalba Creeks) of the western Tiaro District. These sub-catchments together encompass approximately 40% of the land area of the Mary River catchment.

The Gympie District Beef Liaison Group continues to be the major working partner with the MRCCC for this project. Other significant partners are the Tiaro District Landcare Group, DPI&F, BMRG and AgForce.





Graeme Elphinstone leads graziers through workshops covering a range of sustainable grazing land management techniques

The project team has been working with local graziers to investigate ways to improve grazing land condition, sustainability and productivity of their grazing enterprises. Improved land condition has been recognised in National Programs, such as the Reef Water Quality Protection Plan, as a way to maximise productivity (and profits) and reduce sediment and nutrient losses from grazing land.

During 2007-2008 the Western Mary Catchments experienced some excellent rainfall and in some parts significant flooding. This was a welcome relief after the severe drought conditions of previous years.

#### Field-days & Workshops

During 2006-2008 the Western Mary Catchments Sustainable Grazing Landscape Project has organised or assisted with the following field-days:

- Management teeningues	sted with the relievi	
Field-days & Workshops	Date	No. of people
Widgee Grazing Landscapes Project Launch	March 2006	80 people
Munna Creek Waterwatch Workshop	April 2006	20 people
Tiaro Landcare Field-day	July 2006	30 people
Wide Bay – Widgee Waterwatch Workshop - Kilkivan	August 2006	10 people
Wide Bay – Widgee Waterwatch Workshop - Widgee	August 2006	10 people
Teebar Fire Management in Native Forests	August 2006	35 people
Lower Wonga Soil Night	February 2007	30 people
Lower Wonga Soil Kit Field-day	February 2007	15 people
Sexton Soil Kit training day	February 2007	10 people
Mothar Mountain Soil Kit training day	March 2007	10 people
Kilkivan Stocktake Workshop	May 2007	10 people
Antigua Grazing Landscapes Field-day	May 2007	80 people
Tiaro Landcare grazed wetlands field-walk	July 2007	20 people
Munna Creek Waterwatch Workshop	January 2008	15 people
Widgee - Wide Bay Waterwatch Workshop	March 2008	15 people
Lower Wonga Dung Beetle field-walk	March 2008	15 people
Grazing Land Management 4 phase workshop (Gympie – Kilkivan)	April 2008	25 people
Post drought pasture recovery field-day - Manumbar	May 2008	120 people

#### **Property Extension Activities**

During 2006-2008 the Western Mary Catchments Sustainable Grazing Landscape Project has conducted the following property extension activities:

Western Mary Sub-catchment	No. of property extension activities (property visits etc)	
Munna Creek sub-catchment	22	
Wide Bay Creek sub-catchment	24	
Widgee -Glastonbury Creeks sub-catchments	13	
Western Tiaro sub-catchments	10	

#### **Sustainable Grazing Implementation Projects**

During 2006-2008 the Western Mary Catchments Sustainable Grazing Landscape Project has assisted landholders in the project area by providing grants to the following implementation projects:

Project Type	No. of projects
Riparian fencing	4
Riparian fencing and watering point	6
Reducing erosion risk through improved evenness of grazing	11
Reducing erosion risk through improved infiltration	2
Reducing tunnel erosion risks	1
Reducing surface erosion risks	1
Weed control activities	3

#### On-ground Projects In-kind Contributions (2006 – 2008)

In-kind contributions	NLP Funds	Total	Multiplier
\$227473	\$103516	\$330989	2.2

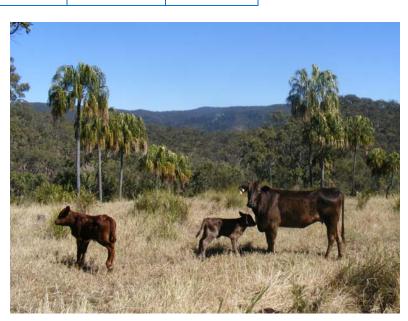
#### **Resource Assessment**

During 2006-2008 the Western Mary Catchments Sustainable Grazing Landscape Project conducted resource assessment activities within the project area.

A key component of the project is the identification of Grazing Land Types for the Widgee – Wide Bay sub-catchments (Kilkivan) graziers. A grazing land type booklet has been developed for the Munna Creek sub-catchment. Grazing land types are a combination of soil information, vegetation community and pasture composition.

A Grazing Land Condition

assessment report has been completed for the project area using the Grazing Land Condition Field



Cattle thrive alongside Livistona palms in the Widgee subcatchment

Assessment sheet. The GLC field assessment sheet was developed by the project team as a simple benchmarking and monitoring tool that project participants could perform on their property over time.

Resource Assessment		
No. of sites assessed for Grazing Land Condition 64		
Average score of sites assessed for Grazing Land Condition (ABCD)  B-		
No. of biophysical studies to develop draft Grazing Land Types  7		
No. of draft Grazing Land Types identified	8	
Widgee - Wide Bay Sub-catchments draft Grazing Land Types		
1. Solodic soils on sandstones and granites – Open Forest (Spotted Gum)		
2. Mixed (brown/red/yellow) prairie soils on volcanic rocks - Open Forest (Ironbark)		
3. Black soils on serpentine - Open Forest (Bloodwood & Grass-trees)		
4. Prairie soils on volcanic rocks & granites – Rainforest (Hoop Pine)		
5. Loamy soils (leached / gravely) on shales – Open Forest (Gum-topped Box)		
6. Sandy granitic soils - Open Forest (Moreton Bay Ash & Quinine)		
7. Duplex soils on volcanic rocks & boulder beds – Open Forest (Iron-bark)		
8. Friable earths on floodplains & creekflats (Open Forest – Blue Gum)		

Another key resource assessment item of the project is the identification and assessment of wetlands of the Western Mary Sub-catchments. A wetland health score-card has been developed to assist with the identification and assessment of the wetlands of the project area.

Wetland Assessment for Western Mary Catchments			
No. of wetlands assessed in Munna Creek sub- catchment  29			
Western Mary Catchments Wetland Profiles			
1. Billabong			
2. In-stream Lagoon			
3. Marshland (with gilgais)			
4. Marshland (without gilgais)			
5. Anabranch			
6. Salt-pans			

#### Mary Program of Rivercare (2005 - 2008)

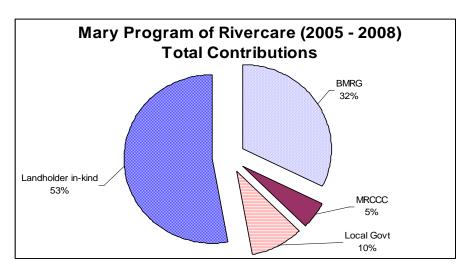
The Mary Program of Rivercare commenced in 2005 and finished in June 2008. Also referred to as M-05, M-07 and M-08, the objective of the project is to enable implementation of onground riparian works within key priority areas (freshwater biodiversity & water quality) identified in the revised plan.

The Mary Program of Rivercare was jointly funded by the Burnett Mary Regional Group, local government and the MRCCC, and aimed to assist riparian landholders by providing modest incentives to protect or rehabilitate their riparian frontage.

Numerous landholders have contributed many years of their own labour, equipment and funds resulting in a suite of ecological, social and economic improvements and a significant in-kind contribution to the Program. The funding providers have shown continued support for the program, particularly the BMRG, and the former Maroochy, Noosa and Cooloola Shire Councils.

Rivercare Project sites are selected according to their priority for water quality improvement (eg. quantity of sediment to Great Sandy Strait) or freshwater biodiversity status (eg. Mary River Cod habitat etc).

Financial Year	Number of Projects	BMRG Funding	MRCCC in- kind	Local Govt Contributions	Landholder In-kind
2005-2006	53	\$302,000	\$84,042	\$83,726	\$689,213
2006 - 2007	46	\$306,000	\$22,554	\$72,814	\$700,589
2007 - 2008	33	\$174,500	\$23,520	\$81,596	\$597,740



Mary Program of Rivercare Outcomes - 2005 - 2008

Project Type	Quantity (2005 - 2008)
Riparian fencing	35.5 km
Off-stream watering points	32 points
Riparian revegetation	42.77 hectares
Environmental weed control	226.7 hectares
Assisted regeneration	85.8 hectares
Stream length	95.63 km
Rivercare Projects	132
Project Activities during 2005 - 2008	
No. of project awareness events	233
No. of people involved in project	5315
No. of displays about the project activities	56
No. of written products about the project	2410
No. of training events organised by the project	85

#### Rivercare Project Monitoring (2006 & 2007)

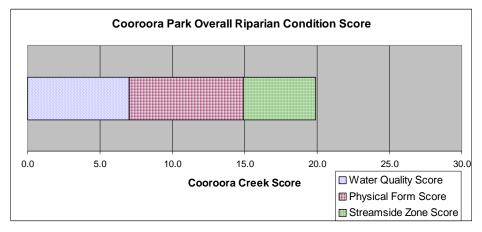
In 2006 & 2007 Mary Program of Rivercare project sites were monitored to capture baseline data of the condition of the site before implementation of the project was commenced. A monitoring system called "Index of Stream Condition" was used to capture the baseline condition of the riparian zone at the project site.

Index of Stream Condition assesses the condition of 3 key features of the riparian zone:

- 1. water quality
- 2. physical form (e.g. bank erosion)
- 3. streamside zone (e.g. riparian vegetation)

An example of the condition of a Rivercare project site is detailed below:

Waterway Management Unit	COO2	Score	Cooroora Creek - Pomona	
Name			From near Hill Street to near Mill Street, Pomona	
Project Location	Cooroora Park			
Total Score		19.9	Overall Comment: GOOD	
Water Quality Score		7.0	Good water quality, although pH value low (inherent in Six Mile catchment) and slightly elevated Turbidity due to recent rain.	
Physical Form Score		7.9	Good physical form, although average instream habitat	
Streamside Zone Score		5.0	Average to poor due to narrow width of streamside zone and poor longitudinal connectivity (gaps in riparian vegetation).	
SC		score (i	evegetation activities will assist with streamside zone core (ie. Increased width and in-filling of riparian egetation gaps)	





Removal of Camphor
Laurel and Exotic Pines
plus revegetation
activities have been
taking place along
Cooroora Creek,
Cooroora Park, Pomona,
which is classified as
Regional Ecosystem
12.3.1 or Gallery
rainforest (notophyll vine
forest) on alluvial plains.
Cooroora Creek is also
habitat for the Giant
Barred Frog

#### Living with Threatened Species - Eva Ford

#### Frogging on

My life between September and May each year is measured by the evenings spent, not in my home with loved ones, but along our tranquil waterways under the cover of night, listening and searching intently for any sign of our amphibious friends. The senses that are normally sedate become focused and intent; ears straining to hear, then identify frog calls and eyes trained on the forest floor to pick up any small movement, shape or eye-shine in the torch beam. Greatest rewards are not only finding the object of the search, but also sharing the skills and secrets of the

night with those who have never ventured into the forest at night (even on their own properties).

This past frogging season was all the better thanks to the flooding rain in August and high summer rainfalls throughout. However, while this makes for generally good conditions for water dependant species, it is not as productive for frog hunters, as rainy nights reduce the ability to hear calls and flooded creeks reduce breeding opportunities for stream-dependant frogs. Such wet conditions however are ideal for those species who enjoy breeding sites in temporary and contained water bodies such as dams and soaks. In these areas, as most people would have experienced last summer, the cacophony of calling male frogs was deafening to say the least!



Laughing tree-frog - Litoria tyleri

many valued volunteers, property owners and our funding supporters (Maroochy and Cooloola Shire Councils), to conduct 60 surveys resulting in around 700 frog records, 136 of which were threatened species. The 22 waterways visited included Six Mile, Deep, Kandanga, North Deep and Tinana Creeks to name just a few. A survey along the Mary River upstream of Conondale revealed a massive 13 different species, including the Giant barred frog (endangered, EPBC Act), Cascade treefrog and Tusked frog (both vulnerable) in one small area. The Giant barred frog was also found way downstream along Six Mile Creek in the Woondum area and were finally confirmed after five years of visiting Cooroora Creek in the Pomona area.

To date MRCCC has carried out more than 370 surveys targeting frogs of the Mary catchment and collected around 4400 records with 1058 of those being threatened species records. Four monitoring sites have been established and visited for the past 3 seasons.

The Queensland Museum visited some of our sites to photograph the Cascade treefrog for their new, and soon to be published, book on frogs of South East Queensland. They were also grateful to be supplied with a Roth's treefrog photo from Traveston rather than travelling much further north to find a subject to photograph.

A Land for Wildlife workshop was provided as part of their workshop program. A healthy crowd of over 50 showed that there is always a great interest in these interesting animals. A following survey along Tozer gully enabled some of the group to put their new knowledge to practice and revealed six species; not a bad result for a suburban waterway.

We look forward now to the coming breeding season following a relatively wet winter. With the Wallum frogs project approved for funding under the WWF Threatened Species Network's program we are keen to broaden our horizons to the area east of Tinana Creek and the upper sections of Kin Kin Creek. Time will be spent in some of the western and southern sub-catchments with support from the BMRG and the Sunshine Coast Regional Council.

#### **Butterfly activities**

The Richmond Birdwing butterfly recovery project has been progressing well this past 12 months, through verification of host vine sites with the help of Vanessa Bugg. Vanessa has looked at many sites to determine the true presence of the vine, *Pararistolochia praevenosa* or Birdwing Butterfly vine, around the catchment, concentrating her efforts south of Gympie to date. Site verification entails looking for the elusive vine amongst vegetation where every second leaf resembles that of the vine, making an educated assessment of the plant and, if deciding that it is *Pararistolochia praevenosa*, collecting a few leaf specimens, submitting those to the Queensland Herbarium



Above: Don Sands (right) leads locals at Kilcoy Creek on the hunt for butterflies and vines, whilst Vanessa Bugg (below) gazes in awe at a huge vine system above Walli Creek



and entering a record into the National Database of the Richmond Birdwing Recovery Network. From this database a map of locations of vines (both natural and planted) and butterfly sightings can be viewed. The most significant finding so far was the largest and oldest (300-400 years old) vine system ever seen by Don Sands (President of the RBRN) found on Walli Creek during an expedition into the area led by local resident, Graeme White. Records of vines and butterflies along the Belli Creek have served to increase even more the local significance of this subcatchment, proving it to have extremely high environmental value.

Recently, with the season of butterfly emergence upon us, butterflies have been reported from new areas such as Curra north of Gympie and Bauple. These are significant sightings, indicating that there may well be linkages northwards from the Eumundi/Kenilworth line of occurrence through vine presence. More searches for vines are planned including Glastonbury and Bauple areas among others. Vines continue to be provided to those who wish to take up the challenge of planting and caring for them with the view to providing a stepping-stone for butterflies in the future. The work to recover the Richmond Birdwing butterfly is supported by the old Maroochy and Cooloola Councils and, more recently, the BMRG.

#### Multi Species Prioritisation project

The Multi Species Prioritisation project headed by BMRG's Rachel Lyons is an attempt to break new ground in prioritising a large suite of threatened species (138 to be exact) in the Mary and Burnett catchments in order to direct future funding to projects that will have the highest probability of success and benefit. To be part of a team of researchers from both

catchments, Central Coast University and EPA, that is taking on such a new and innovative project is a real privilege and has provided a wonderful forum for discussion and learning for all. In its final stages, it is hoped that the results can soon be implemented and used to both source and disseminate funding in the near future. We trust that there will be better direction and resources for much needed survey, education and on-ground works projects in the Mary that enhance the recovery of some of our threatened species.

#### On-ground works

Despite local council amalgamation earlier this year we have still been working under the boundaries of the 'old' council system for our on-ground projects, particularly in the 'old' Maroochy Shire. Some of the highlights this year have been the visual impact on a few of our major weed control sites such as Walli Creek (Madeira vine), Cedar Creek (Blue morning glory) and the Pickering Bridge remnant on the Mary River (Cat's claw and Madeira vine).

At the Pickering Bridge remnant, in addition to the normal control measures of foliar spraying, stem scraping and cut-stump, we have complimented this work, and hopefully sped up control results, through the release of the Cat's claw bio-control agent, the Tingid bug. In June this year 144 of the tiny creatures were released at 2 sites amongst the dense infestation of Cat's claw. It is a bit early to know if they are having an effect as progress away from the release site can be slow in the early days. While we continue to manually tackle the vine weeds at this site to protect the integrity of this rare riverside remnant, we are hopeful that, in time, the bugs will take on the role of control on their own.

The contractors that we have hired to take on tasks of weed control, revegetation and regeneration at all our sites, are a real asset to the Rivercare sites that I manage. Of particular note are Prue and Charlie Sparkes, Stephane Cazard and Jason Flynn; all locals, all small-time, individual operators but all with great integrity and dedication to the environment. The relationship that develops between the property owners, the contractors and myself is what makes these projects flow with the minimum of fuss while producing excellent results for all. Of course greatest appreciation always goes to the many property owners (and there are around 50 of them in the



Graeme White and Nina Cox monitoring water quality on Coolabine Creek

Kenilworth district funded by both the Maroochy Council and the BMRG) that dedicate their time and land to riparian rehabilitation for the benefit of all. Waterwatch - Kenilworth and Gympie/Amamoor Waterwatch continues to produce regular, reliable and extremely useful data about the state of our waterways. To ensure that this situation persists we hold annual workshops for all volunteer Waterwatchers and other interested people. Workshops held in June and July were well-attended and interest maintained by having guest speakers, such as Kevin Dailly from Gympie Landcare talking about Cat's Claw bio-control and Phil Moran from Noosa Landcare carrying out the aquatic plant identification component. Steve and Dale (MRCCC) spent valuable time in the lead-up to the workshops improving the layout of our reports and

data presentation. This enabled us to deliver an easy to understand presentation of the data collected at all sites since sampling began. The workshops always include a re-training component where the group get to test the waters of a nearby creek The Kenilworth groups were privileged to test Kenilworth's town water from a bucket on the table of the CWA Hall!

We have had some volunteers relinquish their Waterwatch duties but more have taken on the role. We now have new sites along Coolabine, East Coolabine, Walli, Kandanga, Amamoor, and 6 Mile Creeks.



Kids love Bugs! - Kidzone 2008

#### Kids Club

It is always a joy and a challenge to present really important messages to school children in an inspiring way. Kids Zone is one of those unique opportunities that come along each year where we can talk to 1,000 plus students over two days. Hosted by Gympie Landcare, this event involves 7 rotational activities and MRCCC is always fortunate to deliver one of those. In past years we have spent a great deal of time developing something new for the kids but it is always hard to go past the all-time favourite, 'Water Bugs'. The kids just love to be able

to get their hands in and search for bizarre creatures that live in our waterways, normally unseen. The message that Water Bugs are an

important indicator of water quality gets a mention, and the need to conserve water, ensure the kids procure meaning in their raucous goings-on!

Apart from Kidzone, other children's activities which occurred throughout the year included:

- Richmond Birdwing vine planting at Jones Hill School,
- A presentation on frogs and their habitat at Pomona Day Care Centre (what a great excuse to bury a young child under leaflitter!),
- Turn off the Tap at Hervey Bay to 400 school children,
- Food web, water quality and riparian vegetation field trip with Jones Hill School at Cedar Pocket
- and similar to Cooran School at Yellow Belly Waterhole on Six Mile Creek.

#### Waterwatch, Wetlands and GIS- Dale Watson

#### Waterwatch - Upper Mary, Widgee Wide Bay and Munna

A new method of reporting was used to produce Waterwatch Reports in June 2008 for the Kenilworth District, Gympie & Amamoor, Upper Mary Catchment and Munna Catchment Waterwatch Networks. The MRCCC Waterwatch Report Card Assessment was used in each report, giving a general and easy to understand assessment of water quality at all of the Waterwatch sites using an A to F grading system. The grades are derived by using all of the physical/chemical Waterwatch data collected at the site. This data is then compared to the QLD Water Quality Objectives (WQO's) and reference site data to calculate a percent compliance. This is then used to give the site a grade:



Dale Watson trains Gordon Halliday and Barung Landcare volunteers in the use of water quality field probes

- A Greater than 80 percent compliance, excellent water quality.
- B Between 66 & 80 percent compliance, good water quality.
- C Between 50 & 66 percent compliance, average water quality.
- F Less than 50 percent compliance, poor water quality.

The MRCCC Waterwatch Report Card Assessment grades were then presented in tables and on maps, allowing an easy method of viewing and comparing the general water quality of our Waterwatch sites. A graph was created for each site. An example is given on the following page which further explains how each site attained its grade.

Report Card grades based on Waterwatch data compliance with the 'Mary River Water Quality Objectives to Protect Aquatic Ecosystems' (Environmental Protection Agency, 2006):

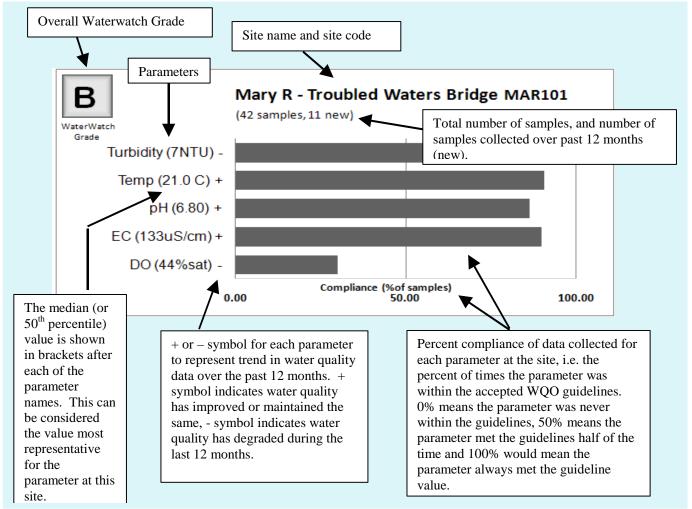
• pH:- 6.5 – 8.0

• Electrical Conductivity (EC): - <580 uS/cm

• Dissolved Oxygen (DO): - 85 – 110 % Saturation

• Turbidity: - < 50 NTU

• Temperature: - Gardner's Falls reference site (Summer 18-28 °C or Winter



Under each of these graphs a brief explanation of the analysis was written, and if several sites on one waterway were being monitored, then a summary for all of the data collected on that waterway was written.

The feedback received from volunteers and peers on this new style of reporting was positive, with many agreeing that the report card method allowed a convenient way of interpreting the Waterwatch data, while the graphs provided a more in-depth analysis of exactly why a site received the grade it did.

Two problems were noted when using the report card assessment. Firstly it was observed that the smaller ephemeral streams (those that do not flow all year round) were receiving relatively low scores, due to the fact that in dry periods when the waterway was not flowing, the site did not meet the WQO guidelines. This is a natural process, and it was thought that perhaps the grades did not properly reflect the health of the stream. The second problem noted was that some sites also received quite poor grades, possibly due to factors that are likely natural geological influences (such as high salinity or low pH as a result of local soils). The solution to both of these problems is the need for the development of our own locally derived water quality guidelines for individual streams, and as we have a large amount of water quality data for many of our Waterwatch sites now, this will be something we will be working towards. The findings within the Waterwatch reports were presented to the relevant Waterwatch networks at the Waterwatch Workshops held in June. The Gympie Amamoor workshop was held on the 24th of June at the Long Flat Hall on the Mary Valley Highway. The workshop attendees listened to a brief introduction on general MRCCC and Waterwatch activities, and were then informed about the new MRCCC Waterwatch Report Card Assessment. Information on how the local waterways in the Gympie and Amamoor area scored was then presented and discussed, with interest generated by which sites scored A's and which scored lower. The report card graphs of the relevant sites were then presented, in order to explain exactly why the sites received the grade they did.

If several sites were monitored along one creek, a summary of water quality in that creek was also given. After the Waterwatch data had been discussed, a brief presentation was given on the Water Quality Improvement Plan monitoring project and on the relevance of the SEQ Water plan to the local community.

After the presentation, Phil Moran from Noosa and District Landcare presented his now famous aquatic plant identification session. The presentation began with Phil's hands on water plant identification, where 14 samples of water plants found in the Mary River Catchment are laid out in containers on a table and the workshop attendees are given a pen and paper and asked to try and identify each sample, or if they do not know it, guess if it is a native or a weed. Once everyone has had a good look and touch of the water plants, Phil correctly identifies the samples with a brief story on each, and the attendees can give their answers a tick or a cross. Phil then gave a presentation on the water plants in the Mary, with a focus on our major aquatic weeds and the devastating effects they can have on our environment. Phil's session was very much enjoyed by all attendees, with much learnt about aquatic plant identification and the problems of aquatic weeds in Australia.

Following Phil's presentation, the group car-pooled down to the Tompkins property on Calico Creek where landholder Jenny Tompkins and MRCCC Rivercare Officer Peter McAdam took some time to talk to the attendees about the fencing and revegetation of the Rivercare project currently being undertaken at this site. Whilst on the creek, a demonstration (and a refresher for current Waterwatch volunteers) was given on Waterwatch data collection procedures. The

techniques for water sample collection, proper use of the TPS WP81, WP 82 field meters and turbidity tube and correct data sheet completion were explained, and any questions answered.

Upon returning to the Long Flat Hall, a BBQ lunch was put on for all. Following the lunch guest speaker Kevin Dailly from Gympie and District Landcare gave a presentation on the Cats Claw Creeper Biological Control Project. Kevin discussed the huge problem of Cats Claw Creeper in the area, and the rearing and releasing of the two approved biological control agents for Cats Claw Creeper (the leaf sucking tinged fly and the leaf-tying pyralid moth). Kevin passed around samples of the leaf sucking bug and detailed the process the group undertakes in order to rear and



Graeme White and Veronica preparing to release Tingid Bugs at the Pickering Remnant, Moy Pocket

release these agents. Although in its early stages, Kevin felt that the project was already seeing some success in the field, and would continue to have an effect on this horrible weed in the future.

The Kenilworth Waterwatch Workshops were held on the 17<sup>th</sup> of June at the Gheerulla Hall, Eumundi-Kenilworth Road, and a weekend workshop on the 12<sup>th</sup> July at the Kenilworth Library. The Gheerulla Hall workshop followed a similar routine to the Gympie & Amamoor workshop, with the Waterwatch presentation given in the morning, followed by lunch and Kevin Dailly again presenting on the Gympie and District Landcare's Cats Claw Creeper Biological Control Project in the afternoon. After Kevin's presentation, the group travelled down to Pickering Bridge on the Mary River, to partake in a release of the tingid fly onto an infestation of Cats Claw Creeper in the riparian vegetation. This hands-on activity was very much enjoyed by the attendees.



Volunteers at the Upper Mary Waterwatch training day in Maleny

The Upper Mary Catchment Waterwatch Workshop was held on the 26th of June, in the Hinterland Learning Centre, on Coral Street Maleny. The workshop followed a similar program, with the Waterwatch data presented in the morning, creating great discussion and interest about the water quality of the Upper Mary River Catchment. Phil Moran followed with his sparkling handson session about aquatic plants in the Mary Catchment. Attendees very much enjoyed this session and commented on how much was learnt during Phil's captivating presentation, and how much more they

would like to learn about local aquatic plants, and the huge problems caused by

aquatic weeds. After lunch another demonstration was provided on the use of the Waterwatch equipment and Waterwatch sampling and data collection techniques. After moving back inside the attendees were treated to Eva Ford's presentation on Frogs & Frog Surveying in the Upper Mary Catchment. Eva kept the crowd enraptured with the fascinating world of frogs and the great work she is undertaking in the area with frog surveys and "Living with Threatened Species" projects.

The MRCCC Waterwatch workshops are an integral component of our work within the catchment, not only ensuring our volunteers are kept updated with monitoring techniques and changes in equipment, but also providing an avenue for relaying an analysis of the Waterwatch data we receive back to our volunteers and to the general public. Inviting guest speakers to these workshops (thanks to Phil Moran, Kevin Dailly and Eva Ford) has added a greater variety to the day's activities, and increased interest in water quality from the general public. We look forward to the 2009 series of workshops.

#### Wetland Monitoring - August 2008

In July 2008, the MRCCC was contracted by Wetland Care Australia to monitor wetlands in the Mary and Great Sandy Strait catchments, as part of the larger "Inventory & Prioritisation of Burnett

Mary's Wetlands" project Wetland Care Australia is undertaking for the BMRG.

Dale Watson, Susie Pickens and Maree Prior assessing wetlands on the Cooloola Coast

The aim of the 'Inventory & Prioritisation of Burnett Mary's Wetlands' project is to obtain comprehensive information into Burnett/Mary wetlands to allow their prioritisation for on-ground actions. This was to be achieved by a desktop review of wetlands and data gaps, field-truthing and wetland monitoring, prioritisation using Decision Support System with the final product being a priority list of wetlands. As a result of the MRCCC's on-ground knowledge, experience in ecosystem monitoring and links with local landholders, we were contracted to undertake the field-truthing and wetland monitoring component of this project in the Mary Catchment and Great Sandy Strait.

The locations of the wetland monitoring sites were based on mapping and prioritisation using the Biodiversity Assessment Mapping Methodology (BAMM) from the Environmental Protection Agency.

From this assessment, significant wetlands are chosen for monitoring. Some reference wetlands (those in protected areas) were chosen for monitoring, however the majority were located on freehold or unprotected land, as it is hoped that this will lead to funding for on-ground actions from the protection and rehabilitation of wetlands in the region.

Wetland Care Australia's 'Wetland Assessment Technique (WAT)' was used to monitor the

wetlands. The WAT assesses individual wetlands for general features: • Connectivity

- Surrounding land uses
- Human induced disturbances
- Acid Sulphate Soils
- Vegetation (diversity & condition)
- Weeds
- Habitat types & evidence of fauna
- Hydrological change
- Bank condition

The WAT then identifies several wetland types:

- Paperbark wetlands
- Open freshwater wetlands
- Estuarine wetlands
- Mangrove
- Saltmarsh

Depending on what wetland types are located in the area being monitored, each wetland type is then assessed with a set of criteria specific to that wetland type.

In total 18 wetlands were assessed, three in the upper Mary Catchment, two on the mid section of the Mary River, two in the Munna Creek catchment, one in upper Tinana Creek, one on Susan River, six around Tin Can Bay, two near Rainbow Beach and one at Poona. Gaining permission from landholders and

involving them was a very important part of this project. Contact and relationships with new landholders have been formed, which we foresee will



Paperbark wetland



Dale monitoring in salvinia infested wetland

lead to future on-ground wetland protection and rehabilitation projects. The data collected from these wetland assessments was entered into the WAT Database. This database produces index scores for each of the components listed above, allowing a rating to be generated for each wetland component.

The information collected from the wetland assessments were used to help inform a series of Decision Support System (DSS) Workshops held around the region by Wetland Care Australia. The workshops invited interested and knowledgeable local parties to participate in a process that informed the DSS decision-making and helped prioritize funding opportunities for future on ground works.

Wetland Care Australia is currently completing the final steps of the larger project, and a list of prioritized wetlands will soon be available. For the MRCCC this project has forged strong links between Wetland Care Australia and MRCCC, as well as with local landholders and managers with responsibilities and interests in wetlands in the regional. We hope that this project will lead to further on-ground actions for the conservation and management of wetlands in the region.

#### MRCCC Geographic Information System (GIS) Capabilities

Since the original training of MRCCC staff in the use of GIS some years ago, the MRCCC has come a long way in expanding our capabilities with this important tool. Now armed with the ARC GIS 9.2 program, the MRCCC is capable of producing high quality maps with many features for our catchment area.

Dealing with such a large area as the Mary River Catchment, it is essential that we have access to a mapping system that allows us to quickly but accurately identify locations, information and features important to our work, and our GIS system allows us to this. The MRCCC GIS has allowed us to:

- Produce maps to help the general public identify the locations of our project areas
- Produce property maps, essential to the important process of creating property
  management plans, using aerial photography showing property boundaries, fencing, offstream watering, location of revegetation plots and other property management features.
- Produce maps to provide to funding bodies to detail project locations and details
- Produce maps detailing the location of weed infestations, to give a clear picture of the extent of weed infestations, and assist in the planning process of control of these weeds
- Produce maps detailing the location of threatened species to assist in the planning for the protection of these species
- Produce maps with locations of water quality monitoring sites, to assist in planning for placement of new sites
- Produce maps detailing the results of our important Waterwatch data (for example, the MRCCC Waterwatch Report Card Assessment maps)

#### **Catchment Officer Report - Steve Burgess**

It has been a busy year that has flown by quickly, and it's been a bit of a challenge to make sense of all the changes underway in our catchment. As Groucho Marx said "Time flies like an arrow, fruit flies like a banana"!

This year has seen the start of major changes to policy, administration and regulation within the Mary Catchment that will flow on through the next couple of years, with an extraordinary number of 'opportunities' for public comment on major issues that will affect the catchment for years to come. Trying to stay engaged in the processes of change across all the three levels of government that operate in the catchment has been a huge workload on top of our 'normal' work in the catchment for the year. I'll break down the list of this year's activities into sections, starting with the most straightforward and enjoyable.

#### Schools/education

The publicity surrounding the Mary Valley and the proposed dam at Traveston Crossing seems to have made the issue of catchment management and water planning in the Mary a favourite topic for student assignments at the high-school and undergraduate level. Throughout the year we fielded numerous requests for information and resource materials, and I gave presentations at geography field visits for a number of high schools, including Gympie High, James Nash High, St Patrick's College, Sunshine Coast Grammar and Kimberley College. I was also privileged to be able to talk to the delegation of water planners from the Yellow River Conservancy in China when they visited the Mary River as part of their studies at the International Water Centre.

Our usual involvement with local primary schools continued with field trips with the students from Gympie South and Jones Hill schools, and demonstrations with most local primary schools over the two days at Kidzone. We have started talks with Education Queensland about setting up an educational partnership between the MRCCC and a local cluster of schools as part of the Queensland Environmentally Sustainable Schools Initiative, hopefully to start in 2009. We also spent some time with the ABC 'Bush Telegraph' team in producing some support material for the 'Catchment Detox' radio series and the on-line catchment game developed for Science Week.

#### WaterWatch networks.

Most of the details about this year's waterwatch activities have been included in Eva and Dale's report. The main joy this year was that we had water in the streams to sample,

and a few good flow events in the river for which we were able to take staged 'event' samples for estimating sediment and pollutant loads.

We also had the opportunity of a student placement from University of Qld (Judith Milne) who assisted us with development of some local water quality guidelines for some sub-catchments and contributed to developing the new 'report card' format. Thanks again to the dedicated work of the MRCCC's Waterwatch volunteers throughout the catchment.

#### Environmental Protection and Biodiversity Conservation (EPBC) Act.

I've become extremely familiar with this piece of federal legislation lately. A number of actions in the catchment have been referred for assessment under this Act and the MRCCC has contributed many submissions on Referrals, Terms of Reference and Environmental Impact Statements under this act over the last year. In addition, the MRCCC produced the initial scientific case for nominating the ecological communities of the riffle, pool and sand bar sequences of the Mary River floodplain as a threatened ecological community under the Act. This nomination is currently under consideration. The MRCCC also wrote a submission for the current Senate Inquiry into the operation of the Act, based on our experience with the operation of the Act.

We have had several meetings with members of the federal team responsible for assessing the impacts of the various water projects proposed for the Mary, discussing and showing them the relevant issues in the catchment from our perspective.

#### Sand and Gravel Extraction

There has been a significant increase in the scale of floodplain sand and gravel extraction in the catchment over the last year. All indications are that this activity will increase rapidly over coming years in response to the huge demand for these products from major infrastructure projects planned for SEQ, and the specific identification of individual deposits throughout the catchment.

The growth in this activity has caused considerable local concern, and at least one of these operations was referred to the Federal Government for a decision as to whether the impacts should be assessed under the EPBC Act. At this stage, the EPBC decision is that the environmental impacts do not need assessment at the federal level and these operations are being satisfactorily regulated under the relevant State and local government laws. The MRCCC is trying to stay informed of the state of these operations, and will continue to alert State and local government to situations where we feel there is cause for concern.



Sand & Gravel extraction adjacent to the Mary River, upstream of Traveston Crossing



Three dimensional models of the Mary Valley were used to assess the environmental impacts of changing water levels in the proposed Traveston Crossing Dam

New Water Infrastructure, Regulation and Policy

This year has seen huge changes put in place regarding the regulation of water in the catchment, the effects of which will be felt over the next year. The Water Resource Plan was amended to create a new Water Supply Scheme from Teddington Weir, SEQWater now operates all storages and water supply schemes in the catchment upstream of the barrage storage (formerly run by local councils and Sunwater), and Sunwater retains operation of the Lower Mary Water Supply Scheme, operating from the Mary barrage.

A draft Resource Operations Plan has been produced for the Mary Basin, which is scheduled for release for public comment later this year. MRCCC was able to provide some limited technical input to the environmental flow considerations being written into the plan by the Department of Natural Resources and Water.

The draft SEQ Water Strategy was released for public comment earlier this year and the MRCCC provided extensive comment on its implications for the Mary Catchment. A new Wide Bay Water Strategy is being prepared at the moment and the MRCCC has been included in the Environmental, Social and Economic Technical Working Group for the strategy. In these processes we are but one small voice amongst the many powerful interests who control the flow of information and hold the reins throughout these proceedings. However, it is one of the fundamental roles of the MRCCC to try to have whatever voice we can in regulation, policy and forward planning within our catchment.

I was asked to give a presentation regarding the impact of the draft SEQ water strategy on the Mary Catchment to an Engineers Australia technical forum. This was well received, and Engineers Australia subsequently published the presentation, and included it as part of their accredited professional development programme. I also gave a similar presentation at a forum hosted by the Queensland Conservation Council.

Over the year, MRCCC also provided detailed public comment on the Northern Pipeline Interconnector Stage One and Stage 2 and conducted a major review of the EIS for the proposed dam at Traveston Crossing.

#### Proposed dam at Traveston Crossing.

This has been a major issue in the catchment over the past year, consuming a lot of time. The MRCCC conducted an extensive review of the information contained in the original EIS for this project, and published a separate review of the specific hydrological implications of the proposal for the catchment based on the information presented in the EIS.

We are currently working on a further review of the low-flow hydrology of the Mary, which includes an examination of the implications of the proposed dam for downstream flows during dry periods. This takes into account the latest information from the draft supplementary EIS, and we hope that it will be useful in planning future water management decisions and could inform the next update of the Mary River and tributaries Rehabilitation plan.

Throughout the year, MRCCC received numerous requests for information and guided visits to the Mary River from a wide range of people interested in learning more about the implications of this proposal. This includes politicians from all parties and all levels of government, visiting scientists and journalists. Where possible, we assisted with these requests, in the interests of having as many people as possible becoming familiar with the issues at stake.

As yet, it is not known whether this project will receive the State and Federal government approval required for it to proceed. Whatever the final decision is, there will be a major amount of work needed to restore community spirit for catchment rehabilitation works and to chart a new direction towards a sustainable and productive catchment. This coming year will be a good time to review the Mary Catchment Strategy and the Rehabilitation Plan, to allow for the impacts of this project that have already occurred, and for the future of the catchment which will be determined by the State and Federal decisions.

The following list of submissions, papers and reports has been produced on behalf of the MRCCC during the last year.

- MRCCC submission for NPI Stage 2 draft Terms of Reference (Sep 07)
- Comments on the draft amendments to the Water Resource (Mary Basin) Plan 2006 (Oct 07)
- Hydrological Analysis of the Flow and Storage Data Presented in the Environmental Impact Statement for the Proposed Traveston Crossing Dam (Jan 08)
- MRCCC Traveston Dam EIS submission (Feb 08)
- MRCCC Submission regarding the proposed change to the Northern Pipeline Interconnector (Stage 1) Environmental Impact Statement. (Feb 08)
- EPBC nomination for the Ecological Community of the Riffle, Pool and Sandbar sequences of the Mary River Floodplain (Apr 08)
- Pickergill G, Burgess S, Kreutz D and Wedlock B. An alternative catchment approach to solve water supply demands of SEQ and save the Mary River. Paper presented at the International Association for Impact Assessment Conference Perth (May 08)
- A River Today, A River Tomorrow, A River Forever Comments on the Draft South East Queensland Water Strategy (Jul 08)
- Pickergill G, Burgess S and Wedlock B. What is so special about the Mary River and its threatened ecological communities? Paper presented at International River Symposium Brisbane (Aug 08)
- Comments on EPBC Referral 2008/4412 Sand & Gravel Extraction, Cambroon (Sep 08)
- Submission to the Senate inquiry into the operation of the Environment Protection and Biodiversity Conservation Act 1999. (Sep 08)
- Why the Mary is at risk from low flows: a review of the low-flow hydrology of the Mary River, Queensland. (Oct 08) (in preparation)

"The Mary River already suffers from serious environmental problems, many of which show up in dry times like 2002 and 2006, typically in the dry months from July to November. At the moment, not all the water which has been allocated from the river is extracted. The Traveston Crossing proposal and associated pipeline projects, along with the anticipated future water demand for the Fraser Coast, the Sunshine Coast and Brisbane will enable all of these allocations to be taken from the river, as well as introducing a new out-of-basin transfer of 70GL per year from stage 1 Traveston and 150GL per year in stage 2. To put this level of extraction in perspective, the total flow measured in the river at the damsite for the 2006/2007water year (a dry year) was 26GL.

Flows in the Mary River are extraordinarily variable. In years with flow similar to the long-term mean annual flow, the anticipated levels of extraction are not likely to cause any significant problem; in much the same way that that flows in the Murray River are not a problem in the 'average' years. However, in dry times this same level of extraction has significant impacts and the modeling presented in the EIS for the dam indicates that flows in the river will be significantly worse than what the river already experiences. The fact that a large part of the Mary catchment is downstream of the damsite does not mean that the adverse flow impacts from the dam will be ameliorated by inflows further down the catchment. In dry times, when many of the adverse impacts will occur, much of the catchment downstream of the damsite removes more

#### **Lake Macdonald Catchment Care Group**

#### Progress of the biological control and ecological research on Cabomba

The goal of this research was to improve our ability to manage the submerged invasive weed, cabomba (*Cabomba caroliniana*), through the development of safe and effective biological control and ecological studies in order to develop alternative control measures. The objectives included; 1) surveying cabomba species in the Americas to identify potential biological control agents and create a prioritised list, 2) completing the host specificity testing on the most promising agent (*Hydrotimetes natans*), 3) identifying the origins of Australian populations of *Cabomba caroliniana*, 4) conducting a chromosome analysis of Australian and Argentinean populations in order to determine why some populations in Australia are sterile, and 5) identifying alternative management methods through ecological studies. We have made significant progress against each of these objectives.

We have completed our surveys in Argentina (the native range of *Cabomba caroliniana*) and have identified seven species of arthropods. However, during ecological studies on these species in Argentina we found that only one of these, the weevil (*Hydrotimetes natans*), is likely to be host specific enough to be considered safe for release in Australia. We have also surveyed populations of *Cabomba furcata*, *Cabomba aquatica*, and *Cabomba palaeformis* in Venezuela, Costa Rica and Mexico, and additional populations of *Cabomba caroliniana* in Florida for potential biological control agents. These surveys yielded another 18 taxa of arthropods. We have constructed a prioritized list based on trophic level and likelihood of host specificity and are currently completing identification of these species.

We have imported the weevil, *Hydrotimetes natans*, into quarantine and have begun host specificity testing. We have acquired the most closely related plants native to Australia (*Brasenia schreberi* and *Nymphoides indica*) along with various other native species (*Hydrilla verticillata* and *Potamogeton spp.*) and are propagating these in our quarantine facility in Brisbane along with cabomba and the weevil. However, we have not yet completed the testing.

The genetic analysis indicated that most Australian populations are hybrids between the two varieties; *C. caroliniana var. pulcherrima* and *C. caroliniana var. caroliniana*. *C. caroliniana var. pulcherrima* is from the southeastern USA, whereas *C. caroliniana var. caroliniana* is from Argentina, suggesting that the most common variety in Australia is a hybrid of the Argentinean and US varieties. Two anomalous individuals were found, which indicates the possibility of multiple introductions of Cabomba into Australia.

The chromosome (karyotype) analysis has found that *C. caroliniana var. caroliniana* samples from Argentina had 99% pollen viability, indicating they are fertile (2n=38). Published chromosome numbers for *C. caroliniana var. pulcherrima* is 2n=78.

The samples from Australia haven't yet been analysed, but given the results from the genetic studies and the known ploidy levels in the two varieties, we would expect that the hybridized variety that we have in Australia is likely a sterile polyploid.

The ecological studies have identified a weakness in the life cycle of cabomba. Because cabomba does not produce seeds throughout most of Australia and has no specialized structures to grow back from after disturbance (thick roots or tubers), we have found that short and intense durations of shade (99% for 3 months) can be used to eliminate cabomba. We are currently testing this technique to eradicate cabomba in a farm dam in southeast Queensland.

Future research needs include; 1) completing the host specificity testing of the weevil, 2) gathering additional ecological information on other potential biological control agents (including pathogens) to determine whether to test these in quarantine, 3) continuing the surveys of the shade eradication trials to determine effectiveness of the technique, and 4) conducting further ecological studies to determine the impact of cabomba and to discover alternative control measures.

A Stakeholder Forum for groups and organisations involved in Cabomba research and aquatic weeds was held at the Rural Futures Centre on Friday 30th May 2008. Guest speakers included CSIRO's Shon Schooler, National Aquatic Weeds Management Group Coordinator, Andrew Petroechevesky, Dr Adrian Volders from SEQwater, Ben McMullen from Sunshine Coast Regional Council (North) and Phillip Moran from Noosa Landcare and NAWG. Participants at the Forum were provided with an update on the Cabomba bio-control research and management of Cabomba in Australia, information about the role of the proposed bulk water entity in managing water resources in SEQ, and the range of aquatic species which could pose a risk to Australian waters.

#### **Noosa Festival of Water**

Wild weather in June resulted in this year's Festival being postponed to the 17th August, on a beautiful sunny day. This is the fourth year that the Festival has been held, attracting up to 2000 people to Lake Macdonald and the Botanical Gardens. With support from the Sunshine Coast Regional Council (North), the BMRG and a host of community organisations, this year's Festival was a very successful event, providing a wide range of activities and entertainment. MRCCC offered a free water testing service, and were bombarded with customers early in the day waiting patiently for their dam, creek or bore water sample to be tested, and for an explanation of what the results meant for their livestock and gardens. Eva's presentation in the Lecture Tent on Threatened Species was well attended, as were the range of presentations delivered on the day. Getting people out onto the Lake is one of the aims of the Festival, and this was accomplished by taking people on boat tours to the Hatchery and the Water Treatment Plan, as well as Canoeing trips and



Boat tours on the Lake to the Hatchery and Water Treatment Plant are one of the more popular activities at the Festival

the ever popular Take a Kid Fishing activity, overseen by Bush and Beach journalist, David Whelan. Fortunately for the junior anglers, a fair number and variety of fish were caught on the day, adding to the excitement for some of the kids who had never caught a fish before. Thanks also to the Barambah Environmental Education Centre for providing fishing rods on the day.

The Amphitheatre buzzed with a range of entertainment, and a number of community and commercial groups had displays of their products and educational materials. Plans are already underway for another Festival in 2009, and despite the fine weather in August, the Festival will again be timed to coincide with World Environment Day in June. The success of the Festival is largely due to the huge in-kind contribution from Council, Landcare, MRCCC, Noosa Parks, Noosa Integrated Catchment

Association, Dave Whelan, the Hatchery, the SES who assisted with provision of a mini-bus and

parking, and some of the entertainers who provided their services free of charge. The highly attractive setting of the Botanical Gardens, Lake and Amphitheatre also helps to draw large numbers to the event. This is a major community education event for the MRCCC and other community groups, providing an opportunity to increase rural and residential landholders knowledge of not only water conservation and water quality, but also the myriad of ecological issues associated with maintaining a healthy waterway. Although the Queensland Bulk Water Authority will take ownership of the Lake at some stage, we assume that they will be supportive of the event and its resultant community education continuing.

#### **Mary River Festival**

In early March this year, a group dedicated to celebrating the Mary River staged the inaugural Mary River Festival at Nelson Reserve, Gympie. With the aim of highlighting the importance of the river as the lifeblood of our community, over 100 volunteers worked together to provide a day of musical entertainment, artistic and cultural activities, environmental speakers, and a range of displays from community and commercial organisations. The inaugural Mary River Festival was hosted by the Cooloola Community Arts Council, with financial support from the Regional Arts Development Fund, Multi-cultural Affairs Queensland, the Queensland Arts Council and the BMRG. The Festival attracted over



Moto entertaining the crowd at the Mary River Festival

1000 people, who enjoyed fine weather and a full program of events including a twilight lantern parade. Planning is now underway for 2009, when the Festival will take place on Saturday 21<sup>st</sup> March.

#### **Regional Liaison for BMRG**

Until June 2008, MRCCC were contracted by the BMRG to undertake the role of a Regional Liaison Officer for the Mary Catchment, assisting a range of groups to complete and report upon their BMRG project works. Not only did this provide MRCCC with opportunities to increase our networks across the catchment, it also enabled us to see first hand some of the on-ground works being carried out by volunteers and landholders from Maleny to Hervey Bay and beyond. Many of the

projects were community driven, establishing an on-going ethic of care and networks of volunteers who will continue with the project works long after the funding is expended. Some notable examples of exceptional projects include:

- The Fraser Coast Wildlife Preservation Society's work at the Akarra Lagoons near Hervey Bay, where volunteers are continuing to care for this unique wetland, not only protecting the ecological features of the wetland, but also enhancing a community space that locals can enjoy for generations to come.
- Gympie Landcare's Cat's Claw biocontrol agent breeding and release program, which has now released the Tingid Bugs at hundreds of sites throughout the



Graeme Berry and John Eggleston at Akarra Lagoons

Mary Catchment and beyond, and is also currently breeding a moth which should be ready for release later in the year. At this time of year as we drive around the Mary, Cats Claw is more obvious due to the bright yellow flowers seen suspended in trees and along creeks. As a result of Gympie Landcare's work, this could become an image of the past.

• The Queensland Dairy Organisation's Dairying Better and Better project, which enhanced dairy farmers' understanding of NRM issues on the farm, and the relationship with the catchment and regional NRM issues, as well as capacity building of farmers through technical and extension support and the development and implementation of a farm management system consistent with EMS requirements.

Through the work of the RLO, it became evident that community enthusiasm to be involved in environmental works in the Mary Catchment is high, and in many cases, the capacity already exists for work to be undertaken. However, assistance in the form of extension and with project management was generally sought and appreciated by most project proponents, who invariably know how to wield a mattock or plant a tree, but have little experience reporting on their activities and keeping track of their expenditure.



Marc Russell and Jim Buchanan checking old documents at the Rainforest Recovery Workshop earlier this year



Barb-wire fences are a hazard to wildlife – Photo courtesy of Wildlife Preservation Society Queensland

### The South East Queensland Rainforest Recovery Program

With funding from the World Wide Fund for Nature, the BMRG and the Envirofund, this project is now well advanced with over 30 landholders contracted to enhance and protect their own patch of rainforest. Three workshops were held early in the year to help potential participants understand the program, identify the attributes of the 12.3.1 Regional Ecosystem and also learn methods of rehabilitating this ecosystem where it occurred on their land Sites range from Maleny to Walli, Noosa Hinterland and Gympie where landholders are fencing off creeks to exclude cattle, removing weeds including Cats Claw and Madeira and revegetating with local rainforest species grown specifically for the project by the Noosa, Gympie and Barung Landcare groups. The project is being run along the lines of MRCCC's devolved grant programs with landholders offered cash incentives to undertake the work, which they then match with their own in-kind contributions of site preparation and establishment, use of their own equipment and on-going maintenance of the site, in some cases over many years after the funds have been granted. Landholders are asked to sign a simple agreement, where they confirm that they will undertake the works proposed and maintain the site to ensure successful establishment.

#### **Living with Wildlife Forum**

In conjunction with National Threatened Species day on Sunday 7<sup>th</sup> September, the MRCCC hosted the "Living with Wildlife" Forum at the Albert Bowls Club in Gympie. The forum aimed to help improve community knowledge and

understanding of techniques for living in harmony with wildlife in rural and urban areas. Throughout the Mary Catchment, land clearing for urban and rural development has fragmented wildlife habitat, reducing natural areas and increasing the human/wildlife interface, as many species move through and inhabit residential landscapes. At the Forum, a full program of experts including well known wildlife photographer, Raoul Slater, delivered a range of presentations on birds, flying foxes, butterflies, frogs, turtles, and also how to care for injured wildlife. Despite clashing with a number of other events including Father's Day, the Forum attracted over 40 people, and gave an indication that activities of this nature are appreciated by landholders. MRCCC will be considering holding similar events in the future.

#### **MRCCC** Website

Over the last 12 months, the MRCCC's website has undergone a major transformation, courtesy of Jeff Searl in Melbourne, and Deb Seal who has been given the task of keeping the website updated. MRCCC can now refer clients to the website where a range of documents, fact sheets and publications can be accessed. The website also works well as a promotional tool for MRCCC activities and events. The popularity of the website in any period can be accessed, and has indicated a large number of hits on the site since establishment. The website has also proven valuable for educational programs, providing information for research and school assignments.

#### **Resource Centre**

Every year for the last three years the MRCCC has moved office – a daunting and exhausting task, and also a situation which is not good for clients struggling to a) find where we've moved to and b) find a park when they get there. Fortunately for MRCCC, 2008 was the year the group found relatively long term accommodation at the former Cooloola Shire Council depot in Tozer Park Rd, Gympie. At this complex, there are three reasonably large offices for staff and resources, a separate area for a waterwatch laboratory, a lunch room, a large storage area for display materials and archives and plenty of parking for visitors and clients. Recent negotiations with Council have resulted in the lease being extended until June 2012, providing the organisation with time to lobby and plan for a permanent home for staff in the future. To this end, the Mary Catchment Public Fund continues to grow, with some substantial donations being received since its inception.

#### <u>Gympie District FarmFLOW Project - Profitable Farms – Healthy Catchments</u> Overview

The Gympie District FarmFLOW project is a partnership between the DPI&F, Mary River Catchment Coordinating Committee and local industry groups that aims to improve primary production in the district through the uptake of best management practices. The project will feature a number of trials, demonstrations, field days and training events.

#### **Local Issues**

Local primary producers have played a major role in shaping the direction of the project and now guide the project through a local steering committee (Beef - Jim Viner, Dairy - Rob Priebe, Small Crops - Peter Buchanan, Macadamias - Phil Montgomery, MRCCC - Jim Buchanan. They have identified local production issues to be addressed including:

- building organic matter in the soil,
- fertiliser and nutrient management,
- minimum till systems,
- environmental management systems,
- improving cover and grazing management, and
- water use efficiency



Geotextile in cross drains on pineapple plantation

#### Outcomes for the Producer

This project adopts the practical principles of sustainability by dealing with the economic, social and environmental components of farming landscapes. Our approaches will therefore target a suite of outcomes for the producer including:

- better businesses and new opportunities for agriculture
- reduced input costs fertiliser, chemicals, energy, water, diesel
- more precise agriculture through efficient management practices
- sustained farm productivity keeping nutrients and water in the root zone
- enhanced viability higher yields from healthier soils
- increased carrying capacity by improving grazing land condition

#### Sustainability outcomes

Efficient farming practices aimed at maximising fertiliser efficiency and improving soil structure and stability will lead to healthier catchments.

### Gympie District FarmFLOW Project 2008 Progress and Performance

- Draft Amamoor Creek Subcatchment Characterisation Report completed.
- Producer benchmarking to be included.
- Several graziers engaged through Gympie Kilkivan Grazing Land Management workshop (April 08)
- Key Farmer Advocates in each target area identified
- Grower visits by industry
  - Pineapples (2)
  - Macadamias (6)
  - Grazing (8)
  - Dairies (3)
  - Beans (3)
  - Other Tree Crops (4)
  - Benchmarking is going well, with 18 interviews completed

#### 3 trials in implementations stage

- Geotextile lining of drains in pineapple to reduce erosion
- Fertiliser use in winter pastures for dairying
- Fertiliser efficiency in Beans

#### Soil Health Field Day currently in planning stages

- Grazing Land Management workshop with 12 Enterprises
- Cootharaba Sown Pastures field walk 10 Landholder participants.
- Up-coming Beans, Macadamias, Avocado and Pineapple field days.

Incorporation of Supergraze project into GDFF for delivery to the Gympie – Kin Kin grazing industry.

Grazing Land Type Management sheets are being developed for the project area, these will form the guidelines for sustainable grazing.

Benchmarking tools developed for horticultural and grazing industries.

- Gympie Meat Profit Day More networking and making useful contacts in project area.
- DPI&F Achievement planning meeting
- Beeftalk Article, with Graeme Elphinstone, "Pastures for High Rainfall Zone"
- Keyline Day at Maleny with Barung Landcare

### River Catchment Coordination Association Inc For the year ended 30th June 2008

Scope

We have audited the financial statements, being a special purpose financial report, of the Mary River Catchment Coordination Association Inc for the year ended 30th June 2008. The Committee is responsible for the financial report and has determined that the accounting policies used and described in Note 1 to the financial statements which form part of the financial report are appropriate to meet the requirements of the Associations Incorporation Act (Queensland) and are appropriate to meet the needs of the Committee. We have conducted an independent audit of this financial report in order to express an opinion on it to the Committee. No opinion is expressed as to whether the accounting policies used are appropriate to the needs of the Committee.

The financial report has been prepared for the purpose of fulfilling the requirements of the Associations Incorporation Act (Queensland) and the committee. We disclaim any assumption of responsibility for any reliance on this report or on the financial report to which it relates to any person other than the Committee, or for any purpose other than that for which it was prepared.

Our audit has been conducted in accordance with Australian Auditing Standards. Our procedures include examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial report and the evaluation of significant accounting estimates. These procedures have been undertaken to form an opinion whether, in all material respects, the financial report is presented fairly in accordance with the accounting policies described in Note 1 so as to present a view which is consistent with our understanding of the Association's financial position, and performance as represented by the results of its operations and its cash flows. These policies do not require the application of all Accounting Standards and other mandatory professional reporting requirements in Australia.

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

#### **Oualification**

As is common for organizations of this type, it is not practicable for the Association to maintain an effective system of internal control over receipts and payments until their initial entry in the accounting records. Accordingly, the audit in relation to these activities was limited to the amounts recorded.

#### **Audit Opinion**

In our opinion, except for the effects of such adjustments, if any, as might have been determined to be necessary had the limitation discussed in the qualification paragraph not existed, the financial report presents fairly in accordance with the accounting policies described in Note 1 to the financial statements, the financial position of the Mary River Catchment Coordination Association Inc as at 30th June 2008 and the results of its operations for the year then ended.

Michael T. Harper (Registered Company Auditor 6286)

Dated this. 16th day of leftenber 2008

Make Ofasper

MRCCC Annual Report 2008

# MARY RIVER CATCHMENT COORDINATION ASSOCIATION INC

# INCOME AND EXPENDITURE STATEMENT FOR THE YEAR ENDED 30TH JUNE 2008

2007		2008
\$		\$
	INCOME	
	Grants Received	
151278.36	- BMRG M-05	15130.00
97000.00	- BMRG M-07	209961.01
1000.00	- BMRG PD	
	- BMRG Codline	4500.00
	- BMRG M-08	124500.00
	- BMRG NLP 06-07	34475.00
	- BMRG NLP 07-08	146725.00
	- BMRG NLP Water	22416.03
	- BMRG RLO	95241.00
	- BMRG RR	167400.00
	- BMRG WQIP	21323.49
7541.82	- Federal Government Rec Fishing	
68016.18	- Local Government	134447.82
147737.50	- NLP	
6377.90	- State Government	
	- Australian Government Grants to Voluntary Environment	
4000.00	and Heritage Organizations (GVEHO) Programme	4000.00
10000.00	- Biocontrol Funding	
	- Main Roads Belli	4820.00
	- Envirofund	52954.55
	- Powerlink	30000.00
	- Festival of Water	15000.00
	Sponsorship - Festival of Water	900.00
	Consulting	41799.63
65066.94	Contracting	
4500.00	Codline	
25380.00	Donations	15430.00
15350.00	Festival Income	
26279.28	Interest Received	33319.13
	Reimbursements	2443.77
452.50	Sales	261.99
10.00	Nomination Fees	20.00
321.85	Sundry Income	
630312.33	TOTAL INCOME	1177068.42

# MARY RIVER CATCHMENT COORDINATION ASSOCIATION INC

### INCOME AND EXPENDITURE STATEMENT FOR THE YEAR ENDED 30TH JUNE 2008

2007		2008
\$		\$
	EXPENDITURE	
1750.00	Audit Fees	1750.00
11.38	Bank Charges	15.00
2928.34	Catering	3418.27
4500.00	Codline	
48.14	Computer Expenses	323.54
20348.00	Contractors	4195.45
	Contractors - Professional	6920.00
2571.00	Delegates Travel	2504.70
2672.76	Depreciation	6224.23
	Festival of Water Operating	3305.91
15061.03	Festival Expenses	34
	Grazing On Ground	69606.06
1008.42	Insurance	1008.42
42.27	Membership	63.18
1510.26	Miscellaneous	1864.08
37.00	Office of Fair Trading	38.10
4060.72	On Ground Project Expenses	
2262.52	Professional Development	169.09
193.93	Publications	310.18
595.59	Public Relations	2535.27
987.69	Postage	1117.03
	Project Ancilliaries	1409.94
	Rainforest Recovery Consortium	193636.35
5984.09	Resource Centre	4465.72
	Relocation Expenses	9384.47
408.32	Repairs and Maintenance	637.55
219024.13	Rivercare on Ground	287174.91
852.50	Staff Travel	
3254.15	Stationery and Photocopying	2791.65
567.96	Subscriptions	431.95
10927.75	Superannuation	15564.70
4371.00	Telephone	4761.23
	Venue Hire	145.46
25911.15	Vehicle Reimbursement	23589.73
6210.48	Waterwatch Operating	18224.34
166719.32	Wages	197399.36
200.00	Website	141.82
638.61	Workcover	654.64
505658.51	TOTAL EXPENDITURE	865782.33
124653.82	EXCESS OF INCOME OVER EXPENDITURE	311286.09

# MARY RIVER CATCHMENT COORDINATION ASSOCIATION INC

#### BALANCE SHEET AS AT 30TH JUNE 2008

2007		2008
\$		\$
	MEMBERS FUNDS	
403296.16	Opening Balance	527949.98
124653.82	Add Excess of Income over Expenditure	311286.09
527949.98	TOTAL MEMBERS FUNDS	839236.07
	REPRESENTED BY : -	
	CURRENT ASSETS	
300.00	Petty Cash	300.00
17261.71	Cash at Bank - Business Cheque Account	166489.05
430.27	Cash at Bank - Lake MacDonald Account	21352.61
470000.00	Cash at Bank - Term Deposit	600000.00
25180.00	Cash at Bank - Public Fund Account	610.22
	Cash at Bank - Public Fund Account - Term Deposit	41209.19
513171.98		829961.07
	FIXED ASSETS	
56717.54	Plant and Equipment	67909.77
25594.54	Less Accumulated Depreciation	31818.77
31123.00		36091.00
544294.98	TOTAL ASSETS	866052.07
*	LESS LIABILITIES	
8289.00	GST Payable	17986.00
8056.00	PAYG Payable	8830.00
16345.00	TOTAL LIABILITIES	26816.00
527949.98	TOTAL EQUITY	839236.07

#### Mary River Catchment Coordination Association Inc

#### Notes to and forming part of the Financial Statements For the year ended 30th June 2008

#### Note 1: Statement of Significant Accounting Policies.

This financial report is a special purpose financial report prepared in order to satisfy the financial reporting requirements of the Associations Incorporation Act (Queensland) and the committee. The Committee has determined that the Association is not a reporting entity.

The financial report has been prepared in accordance with the requirements of the Associations Incorporation Act (Queensland) and the following Australian Accounting Standards:

AAS 1 Statement of Financial Performance

AAS 3 Accounting for Income Tax

AAS 5 Materiality

No other **applicable** Accounting Standards, Urgent Issues, Group Consensus Views or other authoritative pronouncements of the Australian Accounting Standards Board have been applied.

This financial report has been prepared on a cash basis and is based on historical costs and does not take into account changing money values or, except where stated, current valuations of fixed assets. Cost is based on the fair values of the consideration given in exchange for assets.

The following **material** accounting policies, which are consistent with the previous period unless otherwise stated, have been adopted in the preparation of this financial report.

#### (a) Income Tax

The Association is exempt from income tax under the Australian Income Tax Assessment Act 1997. No provision for income tax has therefore been made in these accounts.

#### (b) Fixed Assets

Fixed Assets are recorded at cost. Depreciation has been calculated over the useful lives of the assets to the Association commencing from the time the asset is held ready for use.

#### © Payments to Members

There were no payments made to members of the Association in the form of remuneration.

#### **Mary River Catchment Coordination Association Inc**

#### Notes to and forming part of the Financial Statements For the year ended 30th June 2008

#### (d) Employee Entitlements

No provision is currently shown in the financial statements for any employee entitlements including annual leave, sick leave and long service leave arising from services rendered by employees to balance date.

Contributions are made by the association to an employee superannuation fund and are charged as expenses when paid.

#### (e) Goods and Services Tax - GST

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expenses. Receivables and payables in the Balance Sheet are shown inclusive of GST.

People use water in the household for cooking, drinking, washing and cleaning. However, very few people consider the amount of water needed to produce some common household items.

Wine Water footprint: 120 litres of water for one glass of wine.

Beer Water footprint: 75 litres of water for one glass of beer

Beef Water footprint: 15500 litres of water per kg of beef.

Paper Water footprint: 10 litres of water for one A4-sheet of paper.
Sugar Water footprint: 1500 litres of water for 1 kg of cane sugar.

Maize Water footprint: 900 litres for 1 kg of maize.

Bread Water footprint: 40 litres of water for one slice of wheat

bread..

Apple Water footprint: 70 litres for one apple.

Cheese Water footprint: 5000 litres of water for 1 kg of cheese.

Coffee Water footprint: 140 litres for 1 cup of coffee.

Chicken Water footprint: 3900 litres for 1 kg of chicken meat.

Hamburger Water footprint: 2400 litres of water for one hamburger!

Leather Water footprint: 16600 litres for 1 kg of leather

From www.waterfootprint.org

The MRCCC gratefully acknowledges the support of the following organisations:







### **Australian Government**

**Department of Agriculture, Fisheries and Forestry** National Landcare Programme

# Sunshine Coast Regional Council

















Gympie District Beef Liaison Group Inc.

