

# MRCCC Annual General Meeting - Tuesday 24<sup>th</sup> October 2023 Triballink Activity Centre, 70 Obi Obi Rd, Mapleton

The MRCCC acknowledges First Nations people of the Mary River catchment: the Jinibara people from the headwaters in the Conondale and Blackall Ranges, the Kabi Kabi or Gubbi Gubbi people from the lands where the river begins its journey to the sea, the Wakka Wakka people in the very northwest part of the catchment and the Badtjala or Butchulla people in the tidal reaches, Great Sandy Strait and on K'gari.

We acknowledge the various names by which they've known this river that we've known so recently as the Mary; Numabulla, Moonaboola, Moorooboocoola, Moorooboocoola.

The MRCCC's efforts "healing the country", (this catchment), have spanned thirty years.

We remain humbled by our First Nations peoples' long connection and custodianship and look forward to working together into the future.

The MRCCC gratefully acknowledges support from the;

Australian Government Department of Environment and Energy,

Great Barrier Reef Foundation,

Seqwater,

Queensland Department of Transport and Main Roads,

Queensland Department of Environment and Science,

Queensland Department of Resources,

Burnett Mary Regional Group,

Sunshine Coast Council,

Gympie Regional Council,

Noosa Council,

Fraser Coast Regional Council,

Inspiring Australia through the University of Queensland,

University of Southern Queensland,

**HQPlantations** 

#### **Project Partners**

Noosa, Gympie, Barung and Tiaro Landcare, Lower Mary River Land and Catchment Care group, Hinterland Bush Links, Lake Baroon Catchment Care group, Griffith University, University of the Sunshine Coast, University of Queensland, Charles Darwin University, James Cook University, Australian National University, Alluvium Consulting, CSIRO, the Australian Macadamia Conservation Trust, Qld Parks and Wildlife Service and thousands of volunteers and landholders who consistently contribute their time and resources to ongoing integrated catchment management.

# Mary River Catchment Coordinating Committee

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Find us on Facebook Mary River Catchment Coordinating Committee

Front cover image: Ian Mackay -- the Mary River upstream of Kenilworth

DONATIONS TO THE MARY CATCHMENT PUBLIC FUND ARE TAX DEDUCTIBLE

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Mary River Kayak Survey - March 2023

# Delegates 2023

| Interest Sector                   | Representative        | Title        |
|-----------------------------------|-----------------------|--------------|
| Beef                              | David Higgins         | Delegate     |
| Biocontrol                        | Ross Smith            | Deputy Chair |
| Coastcare                         | Nancy Haire           | Delegate     |
| Grazing Lands                     | Graeme Elphinstone    | Delegate     |
| Dairying                          | Elke Watson           | Delegate     |
| Dept of Environment and Science   | Maria Zann            | Delegate     |
| Dept of Agriculture and Fisheries | Vacant                | Delegate     |
| Education                         | Danny Wellman         | Delegate     |
| Environment lower                 | David Arthur          | Delegate     |
| Environment upper                 | Narelle McCarthy      | Delegate     |
| Fishing                           | Charlie Ladd          | Delegate     |
| Forestry                          | Ernie Rider           | Delegate     |
| General Community Lower           | John Williams         | Delegate     |
| General Community Middle          | Ray Zerner            | Delegate     |
| General Community Upper           | John and Mary King    | Delegate     |
| General Community Western         | Peter Hughes          | Delegate     |
| Gympie Field Naturalists          | Berry Doak            | Delegate     |
| Horticulture - Small Crops        | Vacant                | Delegate     |
| Irrigation                        | Vacant                | Delegate     |
| Landcare, Lower Mary              | Carol Neilsen         | Delegate     |
| Landcare, Upper Mary              | Phil Moran            | Delegate     |
| Land for Wildlife                 | Nonie Metzler         | Secretary    |
| Fraser Coast Council              | Vacant                | Delegate     |
| Gympie Regional Council           | Cr Jess Milne         | Delegate     |
| Sunshine Coast Council            | Denise Lindon         | Delegate     |
| Noosa Shire Council               | Cr Tom Wegener        | Delegate     |
| Seqwater                          | Julian OMara          | Delegate     |
| Project Participant               | Michelle Wilson       | Delegate     |
| Project Participant               | Bob Hood              | Delegate     |
| Special Member/Small farms        | Steve Burgess         | Delegate     |
| Special Member                    | Nai Nai Bird          | Delegate     |
| Special Member                    | Glenda Pickersgill    | Delegate     |
| Special Member                    | lan Mackay            | Chair        |
| Life Member                       | Margaret Thompson     | Treasurer    |
| Life Member                       | Jim Buchanan          | Delegate     |
| Horticulture - Tree Crops         | Brice Kaddatz         | Delegate     |
| Sugar                             | Vacant                | Delegate     |
| Waterwatch                        | Craig & Leslie Hanson | Delegate     |
| Waterwatch                        | Garth Jacobson        | Delegate     |
|                                   |                       |              |

#### **MRCCC Staff**

#### Brad Wedlock - B.App.Sc. (Natural Systems & Wildlife Management)

Specialist in project design, implementation and management, grazing landscapes, sustainable grazing systems, fluvial geomorphology, riparian condition assessment and flora identification, water quality monitoring and data analysis.

#### Eva Ford - B.Sc. (Australian Environmental Studies)

Specialist in project design, implementation and management, threatened stream frog surveys and identification and other threatened aquatic fauna. Also experienced with water quality monitoring and data analysis, aquatic macroinvertebrate assessment, freshwater fish assemblage and monitoring programs, educational activities, environmental assessments, Citizen Science programs.

#### Steve Burgess - B.Sc (Australian Environmental Studies) & Post Grad Maths & Science

Specialist in water quality monitoring and data analysis, hydrology, statistics and agricultural and water modelling. Highly experienced educator.

Alana Ebert - B. Laws (Hons), B. Behavioural Science, (currently completing B. Sc. - Agricultural Science and Environment & Sustainability)

Experienced in report writing, legislative interpretation and analysis, policy analysis, community and stakeholder engagement, water quality monitoring, dairy effluent management, riparian rehabilitation.

#### Rebecca Watson - B.Sc. Hons Natural Sciences

Significant experience with project design, implementation and management, biocondition monitoring and evaluation, water quality monitoring and analysis, project auditing and environmental assessment, cultural heritage reporting.

#### Caitlin Mill - B.Env.Sc (Environmental Science)

Experienced with project design, implementation and management, biocondition monitoring and reporting, water quality monitoring and data analysis, aquatic fauna surveying, GIS mapping, report writing, drone operation.

#### Keira McGrath - B.A. (Anthropology and International Relations)

Experienced with water quality monitoring, coordinating Waterwatch volunteers, Waterwatch data analysis, calibration of Waterwatch equipment, flora identification and propagation, community liaison, frog surveying, aquatic macroinvertebrate assessment and educational activities with students.

#### Sarah Grimish - B.Env. Hlth. Sc (Environmental Health Science), M.Sc Environment and Sustainability

Experienced with report writing, frog monitoring, BioCondition monitoring and Index of Stream Condition assessment, frog monitoring, gully monitoring and data entry.

#### Tom Brook - B. Sci (Hons) (Marine Science)

Experienced in riparian condition assessment, flora identification, project design, implementation and management, biocondition monitoring and evaluation, water quality monitoring and analysis, project auditing and environmental assessment, aquatic and terrestrial fauna surveying, GIS mapping.

#### John Day - Master of Farming Systems Management, Associate Diploma Rural Technology Animal Husbandry.

Extensive experience with Soil conservation, Gully erosion rehabilitation, extension, capacity building, community engagement.

#### Shona Sengstock - currently completing B.Env.Sc (Animal ecology)

Experience with water quality monitoring, outdoor environmental education, Garden environment and community networking, design and delivery of P-6 educational programs, wildlife rescuer and carer.

#### Nathaniel Larsen - Conservation and Land Management

Experienced bush regenerator and contractor, fauna surveying and habitat enhancement, farming systems management, water quality monitoring, community engagement.

#### Administrative team

#### Deb Seal, Mackenzi Finger, Sandra Noonan

Supporting the committee and staff with administrative and financial management, communications and PR, social media, event management, Wildnet data entry, technical support, file maintenance, record keeping.

#### Chairman's Report 2023

Back in November 1993, MRCCC held its inaugural meeting at Garapine, which means we are poised to turn thirty, and we continue to go from strength to strength.

It gives me great pleasure, to present my Chairman's Report for the past 12 months, a report which will but skim the surface of the many activities and events of the year; the variety of project reports that make up our Annual Report will provide a considerably more detailed picture.

Our catchment is both extensive and diverse. It has a wetter part to the south and east, and a (significantly larger) generally drier part to the north and west, though there have been some notable exceptions to this. And what a diversity of weather! Last year's floods fading from memory to be followed by this year's distinct lack of rainfall.

It's a long drive from the upper parts of the catchment, around Maleny, to the lower parts beyond Maryborough to River Heads and Great Sandy Strait. We appreciate this each year as we undertake our annual (two days, two separate teams each day) water testing Catchment Crawl. Though the main trunk of the river is just over 300 km long, the catchment that feeds it has an area of almost ten thousand square kilometres and 3000+ km of waterways.

The bulk of the catchment falls into four local government areas and we value our connections with them all. With Sunshine Coast and Noosa Councils we have entered into multi-year partnerships which are working well. We will be encouraging Gympie Council and Fraser Coast Council to reintroduce their Environment Levy, instead of directing the funds into general revenue. These levies provide options for a range of catchment management initiatives and projects for the benefit of everyone in the community. On the other hand, we have been heartened by some of the work of Council's environment staff. We have spent time with the Fraser Coast



Ian Mackay receiving a donation to the MRCCC from Gympie East Primary School student,

Zander Shute

Mayor and are hopeful we will see a Fraser Coast delegate on MRCCC in the near future. We were delighted that Fraser Coast Deputy Mayor Denis Chapman opened our recent Nikenbah Field Day - a first for the MRCCC.

As well as working with local government, our task would be all the more difficult were it not for the great work of a number of other organisations throughout the catchment. In the upper catchment, Lake Baroon Catchment Care Group, Barung Landcare and Hinterland Bush Links inspire and assist landholders while Noosa Landcare, based in Pomona, and Gympie Landcare offer invaluable assistance and expertise closer to Gympie and in the eastern parts. Further downstream, Tiaro District Landcare and the Greater Mary Association, along with the Lower Mary River Land and Catchment Care Group, engage in activities in the northern part of the catchment. We commend also the great on-going work by the Roving Restorers, organised by Hinterland Bush Links and Noosa District Landcare, as well as the Little Yabba Group.

There's no doubt that partnerships produce the best results. Along with the previously mentioned groups, this includes our regional body BMRG, Queensland Water and Land Care, Alluvium, Seqwater, Griffith University, the Gympie STEM Hub supported by the University of Queensland, University of Southern Queensland, Australian National University, University of the Sunshine Coast, CSIRO, the Australian Government's Reef Trust and the Great Barrier Reef Foundation as well as our most important partners, the landholders throughout the length and breadth of the catchment.

Led by USQ water quality modeller Cherie Sullivan, the MRCCC and community stakeholders recently collaborated to improve our understanding of water quality sediment run-off of the Tinana Creek subcatchment. This project also involved the use of artificial intelligence to inform the modelling and was a very innovative study for all involved.

This year we hosted the CSIRO Reef Catchments Erosion Forum at the Gympie Show Pavilion with field trips to various river restoration and gully projects.

It was an excellent opportunity to showcase work being done on the ground in the Mary catchment with others working in Barrier Reef catchments up and down the Queensland coast and with CSIRO scientists, modellers and funding bodies.

The STEM in the Mary forum at Mimburi held in August during National Science Week, in conjunction with the Gympie STEM Hub, brought together a great range of speakers with the keynote being environmental historian Margaret Cook speaking to her book "A River with A City Problem". The forum provided an opportunity for the wider community to learn about the various sciences applicable to land and water management and was attended by 71 people.

Back in March, MRCCC staff were an integral part of a 15 day scientific and cultural data-gathering canoe trip down the Mary River organised by Tom Espinoza, Director of Research at BMRG. With the involvement of Jinibara, Kabi Kabi and Butchulla representatives as well as scientists from the Australian Rivers Institute at Griffith University, the trip not only gathered a huge amount of data but served to establish great working relationships between all those involved. An account of the trip was featured on the ABC's 7.30 Report.



These relationships were evidenced when we spent several days with international students on their way to the International Freshwater Ecology Conference in Brisbane and when we took part in BMRG-organised Cool Burning Workshops at Moy Pocket and Conondale.

One aspect that couldn't be ignored on the canoe trip was the large number of riparian sites infested with Cat's Claw Creeper, currently in flower as I write this report. We have endeavoured for highlight the vears destructiveness of both this and Madeira Vine on riparian vegetation. We applaud efforts of Biosecurity Queensland

in researching and releasing several biological control agents and Gympie Landcare and Greater Mary Association for rearing them for wider release. We also commend Hinterland Bush Links for their Vine Weeds program in the upper catchment and thank Seqwater for recognising the impact of Cat's Claw on degraded riverbanks in the reaches near their offtakes and their support for biological and manual control. In addition, the MRCCC's work with the Department of Transport and Main Roads targeting Cat's Claw on the lower reach of Six Mile Creek is ongoing. We are, however, not winning and I can't help but think that, as the worst infestations are located in the Gympie Council Region, that an ongoing commitment from the now-purloined Environment Levy could have made an enormous difference. The damage caused by both vines is particularly evidenced following floods and is all too easily looked on as flood damage.

And speaking of floods, a highlight of this year was the impressive "22.96 Receding" exhibition at the Gympie Regional Gallery. Timed to mark the first anniversary of the record flooding of the previous year, the exhibition was a collaboration by three artists, Joolie Gibbs, Miriam Innes and Leroy Todd. It was enormously successful, interest being so great that it ran to a second opening night.

Last year I reported how the riverbank restoration sites that included pile-field projects had fared very well with the testing conditions of major flooding, saving many, many tonnes of fine sediment from finding their way to the Reef. The remediation of riverbank sites using the pile-field method, accompanied by major riparian plantings has continued, focused this year near Miva and Tiaro in the lower reaches of the river.

Our catchment is not only the source of fine sediment which floods convey to the southern part of the reef, it is also home to a number of threatened species. The classification for the Mary River turtle looks like being altered from "endangered" to "critically endangered' such is the concern for their future. Last year our nest protection and relocation program, in conjunction with Tiaro Landcare, saw the successful release of 256 hatchlings at Kenilworth and Goomong with 465 more at Tiaro. MRCCC also hosted workshops to train others to recognise signs of turtle nesting and we attended a workshop to learn more about nesting behaviour of the critically endangered White-throated Snapping turtle.

The three-month closed season for all fishing upstream of Gympie is now in its fourth year and we were pleased to partner with Fisheries staff to spread the word through signage, media releases and patrols. We thank all those anglers who have understood the need for, and complied with, the Closed Season. It is timed to coincide with the breeding season for the endangered Mary River cod and breeding success is integral for the species to not only survive but also to stabilise and even increase in numbers.

On that note, Darren Knowles continues to very capably manage the Mary River cod breeding program at his Cooroy property, providing thousands of fingerlings for conservation stocking in the Mary River catchment each year.

In partnership with BMRG and Griffith University, we are testing a number of sites through the catchment to better understand the extent and distribution of our threatened species and hope to have some results for next year's AGM.

This year saw the release of the draft Mary Basin Water Plan with the final plan due out next year. The MRCCC was pleased that the draft plan ended the fiction of their being a Strategic reserve of 150 000 megalitres in the system, a legacy of the ill-conceived Traveston dam proposal. It did, however, foreshadow some troubling times ahead for some sub-catchments such as Six Mile Creek. A key feature of the draft plan was the switch to volumetric allocations and metering, rectifying a long-standing anomaly which means we will at last have a much more realistic understanding of quantities of water extracted.

Seqwater has just released its long-awaited SEQ Water Security Program. Given that the previous plan identified a raised Borumba Dam playing an increased role in water supply for southeast Queensland, we were pleased to see this ruled out, and better use made of existing infrastructure.

We have repeatedly called for greater use of the Western Corridor Recycling scheme in supplying purified recycled water (PRW) to the southeast Queensland water grid and have noted major community attitudinal changes towards this.

And speaking of water, quality, that is, rather than quantity, our volunteer Waterwatch networks continue to gather invaluable data from both river and tributaries. All this is augmented by the annual Catchment Crawl which gives a snapshot of water quality from source to sea. We thank all our Waterwatch volunteers for their great work, coordinator Keira for collating and analysing all the data collected, and Sandra for her work in entering data. Waterwatch is an excellent example of Citizen Science, developed at MRCCC long before the term entered the popular parlance and this year we celebrate a number of our waterwatchers who've notched up twenty years of testing the waters. Well done, and thankyou.

An ongoing project which will most definitely impact on the catchment is the Borumba Pumped Hydro project on Yabba Creek upstream of Imbil. Yabba Creek is a major tributary of the Mary

Closed Season

All Fishing Prohibited

FROM
1 August To 31 October

# Protect Mary River cod during their breeding season

All fishing (including line and cast net) is prohibited in the Mary River and adjoining waterways\* upstream of its junction with Six Mile Creek at the creek's northern bank.

\*Other than Baroon Pocket Dam, Borumba Dam and Lake McDonald.

Report illegal fishing • 1800 017 116



Chairman Ian shows Sunshine Coast Councillor David Law where the Closed Season applies to the south of Gympie in the Mary River catchment.

rising on the western side of the Conondales and flowing over the magnificent Yabba Falls. The pumped hydro project currently under investigation involves raising the existing Borumba Dam by some 20 metres by building a new downstream wall, constructing a totally new, far more elevated dam, building connecting tunnels and a massive underground cavern to house pumps and turbines, and constructing two sets of high-voltage transmission lines to connect with the existing power grid.

The government has established a Stakeholder Reference Panel which has involvement of MRCCC directly as well as several other delegates representing various interests.

Several years ago, we embarked on a federally-funded gully remediation program and began to work with highly-respected Soil Scientist John Day. John has since come to work under the mantle of MRCCC and has trained several of our staff, not to mention remedying some seriously eroding gullies throughout the catchment. Big gullies invariably start as small gullies and a recently released book (by John and staff members Caitlin and Bec) provides practical and photographic advice on how to fix gullies before they become horrendous.

As our projects grow, so, by necessity, does our staff, and we are pleased to welcome Shona Sengstock and Nathaniel Larsen to the team. We note also that Caitlin has just notched up 10 years with MRCCC, arriving on University placement and since becoming an extremely competent and capable project officer.

I must thank Glenbo Craig for his wonderful work in assembling CodLine, the MRCCC's impressive annual newsletter. The last few years have seen the demise of many print newspapers, including the Gympie Times, but Lesa Bell, along with Glenbo, produce an excellent free monthly publication, Gympie Living, which regularly features articles from MRCCC.

We've been in our own home at 25 Stewart Terrace for just over seven years now and what a contrast to our earlier, rather nomadic existence.

It's wonderful how it's been able to accommodate not only our increases in staff but also a host of other activities. The renovations to the upstairs meeting room, not to mention the kitchen, have proved most useful and we thank generous benefactors for enabling these.

We are indebted to Ross for his years of developing and tending our gardens at Stewart terrace. As well as looking very attractive, seedlings raised from our silky oaks and lomandras have spread far and wide and delicious garden fruit and vegies routinely augment staff lunches.

Can I particularly thank my fellow executive, Margaret Thompson (Treasurer and Life Member), Berry Doak (Secretary), Ross Smith (Deputy Chair), Bob Hood, Garth Jacobson and Jim Buchanan, the most supportive Life Member any organisation could have.

That our organisation functions so effectively is due in no small way to the exceptional work of Brad Wedlock our Operations Manager and Deb Seal our Administrative Officer and all of our staff. I thank them all for their dedication and commitment.

This organisation really is an incredible group of people. It runs on the generosity of time, experience and wisdom of so many people and I thank you all.

Ian Mackay

Mures

Glenbo, Skaidra and Athol Craig with their Nature's Gift publication.

#### **VALE Athol Craig**

Athol Craig walked lightly on the earth and was the embodiment of the expression "nature's gentleman".

Friends and family members paid their respects and tributes to Athol back in May at a memorial service, to the music of a piper and a local harpist

Athol passed away peacefully on 24 April after dedicating years to his family, his conservation projects, both personal and community, and, of course, his well-known annual role of running the honey and beekeeping display at the Gympie Show.

He and his wife Skaidra had recently celebrated their 70th Wedding Anniversary with family and friends. They were a close-knit team who had worked

together on their many contributions to the community and environment.

Athol was a Life Member of Gympie Landcare, an organisation which became one Athol's many environmental enthusiasms. He served on the Landcare Committee, including as treasurer, keeping the books long before computers became commonplace, doing the job with the more ancient technology of pencil, eraser and ledger.

He and Skaidra transformed 10 acres of old tired dairy farm into an oasis of trees and a haven for animals. Active in the garden until he was 90, Athol believed in caring for his crops. His gardening ethos was the "the best fertiliser is the gardener's shadow."

The regular observation of nature that accompanied this was something he also applied to his beekeeping, approaching it with an open mind and not going into a hive with management preconceptions or expectations of his harvest.

Instead he adopted a philosophy of observing and being respectful of the colony's needs, taking the surplus "only if it was there." If the title "bee whisperer" could be applied to anyone, it was certainly part of the nature of "this perceptive gentle man."

With Skaidra and son Glenbo, he formed Valley Bees at the age of 80, and presided over its first seven years

A highly regarded teacher, he taught at many schools in South East Queensland and as far south as Texas, on the Queensland border, finishing his career at Gympie Special School

He became a Special (Opportunity School) teacher and principal, introducing innovative and inclusive new practices based around backyard and environmental activities.

He is survived by Skaidra and five children: Garry, Ross, Glen, Janette and Leanne.

#### **VALE Des Ritchie**

It is with sadness that the MRCCC learned of the death this year of Des Ritchie OAM.

Des was a passionate voice for the environment and social justice.

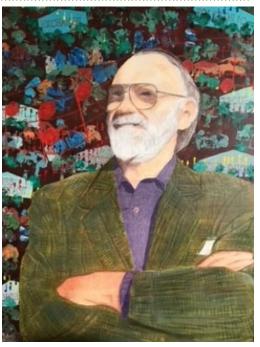
I still remember him from the very first Mary River Congress organised by the late Peter Oliver and held in Maleny in the early 90s.

Des held various roles in the Sunshine Coast Environment Council (SCEC) and was instrumental in bringing an environmental focus to first the Maleny Folk Festival and later the Woodford Folk Festival, where the Greenhouse venue has become an integral part of the festival program.

More than his environmental advocacy, Des was passionate about people. He loved Woodford Folk Festival and especially the Greenhouse, the people and discussions it enabled, and the connections formed.

Des' life was dedicated to taking better care of this planet, active at all levels of the axiom "Think Global, Act Local". He was always passionate about water and waterways, in particular the Mary River. He was an enthusiastic supporter (including financial) of ECO, the SCEC newspaper that was absolutely vital in getting out key messages all through the ill-conceived Traveston Crossing Dam proposal.

But more than all that, Des was a great friend to so many.



Ian Mackay

#### Treasurer's Report

Last year we were wading out of the flood waters on to higher ground, seeking support for flood recovery projects and on-ground work that would improve riparian resilience and reduce sediment and erosion flowing downstream to the Great Sandy Strait and southern Barrier Reef.

It's taken some time but I am pleased to advise that support is now forthcoming through the joint commonwealth and state Disaster Recovery Funding Arrangements, Environmental Recovery program, which is being delivered in four packages targeting riverine recovery, weeds and pest management, biodiversity and conservation and environmental assets. The MRCCC's share of funding from these programs should provide considerable outcomes for flood recovery in the catchment.

I've previously noted the challenges associated with managing our finances. Although we are technically a small business, this past year we have managed income over \$1.5 million, which is significant for a not for profit organisation with honorary office bearers.



As well as reporting to the Office of Fair Trading as an Incorporated Association, the MRCCC is required to report to the federal government Register of Environmental Organisations for the Mary Catchment Public Fund and to the Australian Charities and Not for Profits Commission. These reports are the responsibility of the Committee as a whole.

On top of this, our staff are also required to apply for and manage project funding, maintain project budgets and regularly report to funding bodies on project progress and expenditure. With funding from several sources and 15-20 different projects on the go at any one time, it is commendable that our staff keep on top of each project's finances whilst also ensuring that project outcomes are achieved.

In 2022-2023, over \$1 million amounting to almost 50% of the MRCCC's expenditure contributed directly to onground projects. Add to this the in-kind contributions from land managers and the figures are very impressive. You could be forgiven for thinking that the rising cost of living and fuel in particular is inhibiting the number of landholders interested in partnering with the MRCCC, but the opposite appears to be the case, with landholders continuously lining up for assistance and volunteering with all aspects of the work of the MRCCC.

We will always be grateful for all the donations that led to the MRCCC owning our own premises with solar power and rainwater, which means our overheads are greatly reduced. We will continue to rely on bank interest to cover some administration costs and are pleased to note that the interest rates have improved over the past year.

Once again, I encourage anyone interested in taking on the role of Treasurer to come along to an Executive Meeting to see how the organisation is managed. Our Executive is very ably supported by Mackenzi and Deb, who manage the day to day finances, making the role of Treasurer not so onerous.

Margaret Thompson

#### Mary Catchment Public Fund Trustees Report 2022-2023

The Mary Catchment Public Fund continues to play a valuable role in responsibly managing donations from interested members of the Mary Catchment community to support MRCCC's catchment management program and associated environmental programs.

The Trustee members of the Public Fund Management Committee are Margaret Thompson, Elke Watson, Ian Mackay and Graeme Elphinstone (Chair).

The Committee currently operates and reports as a Registered Organisation under the auspices of the Australian Government Department of Climate Change, Energy, the Environment and Water (Register of Environmental Organisations). However, these reporting arrangements will change in January 2024 to the Australian Taxation Office.

Regardless of these administrative changes, the Public Fund will continue to provide an opportunity for environment organisations like the MRCCC to obtain financial support by way of tax deductible donations from the broader community.

Thirteen (13) individual donations of money to the value of \$88,410 - ranging in size from \$60 upwards, were received during the 22/23 year. These funds will be allocated for the use of MRCCC's projects and associated environmental projects in our region.

The detailed process to facilitate the allocation of donated funds to an associated Environment Group's four marine turtle projects in the Great Sandy Marine Park were finalised in September 2023. These projects included - "Purchase of 16 new satellite trackers and related data download costs", "Operating costs to locate the turtles and deploy the satellite trackers", "Operating costs for the Booral Turtle Group's green turtle tagging program", "Purchase of equipment for the Turtles in Trouble Rescue Group to capture and transport sick/injured turtles".

The MCPF Trustees acting as 'responsible persons' must satisfy themselves as to the merits of the proposed environmental projects by way of a documented project proposal, and further ensure that the funds are correctly expended for the nominated purposes, as evidenced by receipt of a documented Project Report.

The Trustees welcome donations to the Mary Catchment Public Fund from both MRCCC members and other interested persons in the broader Catchment community who wish to support important environmental projects and activities.

We invite you to discuss your individual interests in making a donation with one of our Trustees as listed above. The Trustees will ensure that all donations will be used for the benefit of the catchment and its environment.

Graeme Elphinstone, Chair of the Public Fund Trustees

# Mary River Recovery Project - improving reef water quality through riverbank restoration

Funded by the Great Barrier Reef Foundation

Project works on Kabi & Butchulla country

Aim: to reduce 26,000/tonne/yr fine sediment to the southern Great Barrier Reef



After bank stabilisation works at Tiaro, September 2023

#### **Background**

The study 'An Investment strategy for the Mary River', in February 2020 identified Mary River reaches with the highest sediment loads caused by riverbank erosion. From these river reaches, priority sites for remediation actions were identified, based on calculated riverbank erosion and anticipated sediment savings downstream to the Great Barrier Reef. Due to the fine nature of the sediment within the riverbanks, these eroded fine clay and soil particles travel easily through the Mary River and out onto the southern reef.

In July 2020, the Great Barrier Reef Foundation funded the "Mary River Recovery" project based on the findings of the Investment strategy for the Mary River.

The Mary River Recovery Project is delivered by a consortium comprising the Mary River Catchment Coordinating Committee (MRCCC), the Burnett Mary Regional Group (BMRG) and Alluvium Consulting with revegetation and weed control undertaken by the Barung, Noosa and Gympie Landcare groups. In 2021 and 2022, work was carried out on riverbank project sites on Kabi Kabi country near Kenilworth and the Mary Valley. In 2022 and 2023 the projects are focused on Kabi Kabi and Butchulla country in the lower Mary River at Miva and Tiaro. Revegetation, weed control and civil works to stabilise riverbank sites have resulted in significant sediment savings to the Great Barrier Reef.

Riverbanks contribute approximately 80% of sediment eroded from the Mary River catchment. To stabilise these eroding riverbanks, project activities involve reprofiling these vertical banks (up to 10m tall), to a 1 in 3 slope. Rows of timber poles (called pile fields) are then rammed into the lower slope of the riverbank near the toe (up to 4m deep) to slow the river flow down during flood events. Rock support is also provided to reduce the likelihood of scour along the riverbank. Pile fields reduce stream velocity and promote sediment deposition which provides favorable conditions for vegetation establishment. A riparian revegetation program with 3 years maintenance is then undertaken, using locally suitable native species propagated by the local Landcare Groups.

Vegetation takes time to reach a level of maturity, structural diversity and robustness that allows it to provide the desired erosion control (and other) functions.

The timber pile fields provide protection in the meantime but will decay after 10 - 15 years. Establishment of riparian vegetation is therefore critical.

#### Mary River Recovery activities during 2022 /2023

Despite the challenging flooding events of 2022, recovery of the project sites has been exceptional during 2022/23. Trees and shrubs that were planted with excellent soil moisture in 2022 have grown at astonishing rates. However the lack of rain in Summer 2023 has slowed growth rates of the revegetation sites established in 2022. Fortunately, the excellent conditions during the plant establishment phase has stimulated excellent root development which has enabled these plants to cope with the drier summer. Subsequent maintenance and watering has enabled these plants to fully establish and grow during the drier times we are currently experiencing.

During 2022/23 riverbank stabilisation works were completed at 5 sites engaging 13 new landholders in the Tiaro, Miva districts. All sites presented challenges as the catchment transitioned from flood to drought in 2022/23. These sites are located in the lower Mary River and were planted from April to September 2023. Revegetation works involved engaging 2 contractor groups, each providing a diligent approach to planting and follow up maintenance. Key personnel now have good ownership of the sites. Trees and shrubs planted this year experienced a forgiving early start to winter with minimal frost, good rainfall resulting in growing tips being observed throughout the winter period. Towards the end of the winter and early spring however, well below average rainfall has resulted in poor soil moisture. Regular maintenance and watering of these sites has prevented plant loss due to moisture stress.

Two sites in the upper reaches of the Mary River at Cambroon and Kenilworth are presently reaching completion of the initial stage of riverbank stabilisation. A 3<sup>rd</sup> site is planned to be completed at Moy Pocket by the end of 2023. Over the summer period, the surfaces of these sites are protected with a cover crop in preparation for planting of suitable native riparian seedlings the following autumn when it is anticipated there will be good soil moisture, whilst avoiding potential risks with young plants during the flood season.

#### Mary River Recovery Activities since commencement of project

| Site and location                     | Fine sediment saving (t/yr) to the reef | Seedlings<br>established | Stabilisation<br>works<br>completed | Revegetation completed | Planned for<br>2024 |
|---------------------------------------|---|--------------------------|-------------------------------------|------------------------|---------------------|
| Mackie, Upstream<br>Kenilworth        | 1449                                    | 5,197                    | Winter 2021                         | February 2022          |                     |
| Marr, Kenilworth                      | 723                                     | 5,007                    | Winter 2021                         | March 2022             |                     |
| Beattie Creek,<br>Kenilworth          | 135                                     | 2,735                    | Winter 2021                         | December 2021          |                     |
| Kevindale , Goomong                   | 1190                                    | 12,500                   | Winter 2021                         | May 2022 (post floods) |                     |
| Petersen, Miva                        | 1706                                    | 15080                    | October 2022                        | June 2023              |                     |
| Schiefelbein,<br>Downstream Miva      | 2812                                    | 23375                    | January 2023                        | May 2023               |                     |
| Robinson, Tiaro                       | 8302                                    | ~9000                    | August 2023                         | September 2023         |                     |
| Mimnaugh, Tiaro                       | 1144                                    | ~4500                    | September 2023                      | September 2023         |                     |
| Kings, Conondale                      | 620                                     | 6000                     | September 2023                      |                        | March 2024          |
| Perren / Kennedy,<br>Kenilworth       | 2430                                    | 8000 trees               | October 2023                        |                        | March 2024          |
| Baillie, Moy Pocket                   | 1071                                    | 5000 trees               | October 2023                        |                        | March 2024          |
| TOTALS to date October<br>2021 - 2023 | ;                                       | 21447 tonnes f           | ine sediment saved                  | I to the reef /year    |                     |

#### Fauna findings

For all sites, careful consideration is given to fauna protection, particularly threatened freshwater turtles. Species Management Plans are developed in conjunction with the Department of Environment and Science for riverbank stabilisation projects on the Mary River to ensure that project works are conducted with due consideration to mitigate impacts to native fauna in the area. The endangered Mary River turtle and White-throated snapping turtle can use eroded riverbank sites for nesting habitat, therefore due consideration of impacts to these species is critical. Species Management Plans cover all projects of this type along the Mary River with special emphasis on threatened species, colonial breeders and least concern fauna.

#### Stakeholder days and external assessments days

Members from CSIRO, Great Barrier Reef Foundation, local government, State Government Departments, landholders and other stakeholders attended a field day in Kenilworth in November 2022 to examine the performance of three riverbank stabilisation sites following significant floods earlier in the year. The day was very informative and stakeholders were keen to learn from each other.

GBRF engaged a technical specialist to assess the efficacy of the sites and to provide feedback to GBRF and the consortium. The critical analysis of sites provided an opportunity to investigate more effective delivery / design options whilst also highlighting some of the challenges of delivering these projects.

#### Planning for 2024

The 2023/24 financial year is the final year of this project with three sites located at Cambroon, Kenilworth and Moy Pocket to be revegetated in Autumn 2024 following the summer rain.



Installing a wildlife camera at Tiaro site



Landholder Jennifer learns turtle nest recording With internationally renowned turtle expert, Marilyn Connell



Stakeholder day at Kenilworth November 2022

#### Reef Trust IV

Funded by the Australian Government Department of Agriculture, Water and the Environment, the Reef Trust IV project began in mid-2017 and was due for completion in 2022, however supplementary funding supported additional monitoring, maintenance and flood recovery activities until June 2023. Over the course of the project 60+ projects were completed involving on-ground riparian restoration activities including revegetation, fencing and off-stream watering, and weed control.

Statistics for the overall project are as follows:

- 44 hectares of riparian area planted with over 90,000 trees and a further 30 hectares of natural regeneration occurring;
- 32 kilometres of riparian fencing installed protecting 200 hectares of riparian zone;
- 71 off-stream watering points installed;
- 116 hectares of riparian zone treated for environmental weeds.

These project works prevented approximately 16,000 tonnes per year of sediment from entering the Great Barrier Reef lagoon.

In July 2023, the MRCCC hosted the Reef Trust Erosion Control Forum in Gympie over two days. Over 60 representatives from universities, CSIRO, government departments, catchment groups, and Landcare attended. The first day involved presentations on the overall achievements, learning outcomes and post flood impacts of the Reef Trust IV project. Day 1 also provided opportunities to share and exchange ideas across industry to assist with the design of the next phase of Reef Trust - the Landscape Repair program expected to roll out in early 2024.

The MRCCC hosted a field trip on Day 2, focusing on the impact of flooding on riparian restoration works funded by Reef Trust IV. The key message and discussion was around the necessity of ongoing maintenance and funding for all project sites post-floods to ensure long-term success. The field trip visited three sites on the Mary River, starting just upstream of Gympie, then to Kenilworth, and finally to Cambroon. The Gympie and Kenilworth sites were both doing well prior to the floods, however needed some replacement planting and extended maintenance throughout the site due to flood impacts. The Cambroon site was a 25-year-old site that required some repair works post-the 2022 floods, demonstrating that no site is "set and forget" and may require ongoing investment. This site has recently been repaired through the GBRF program and will be revegetated in Autumn 2024.

Following the Forum field trip, an additional two days of field visits was held to inspect remediated gully sites funded by GBRF in 2020. On the first day, smaller sites were visited including two properties on highly sodic soils in Sexton, and to view dam bywash fix-up at Home Park. On the second day larger sites were visited at Lower Wonga, Mt Urah, and Munna.



The Erosion Forum field trip visiting the Cambroon site. Over 60 representatives from universities, CSIRO, government departments, catchment groups, and Landcare attended.













The 25-year-old site on the Mary River at Cambroon that required some repair works post-floods of 2022.

Pre 1999 flood October 1999



Inspecting remediated gully sites during the erosion forum.





Grazing landholders assess pasture condition at Cooroy (top) and Nikenbah

# Queensland Government Natural Resources Recovery Program

This project was approved in October 2022, building upon the MRCCC grazing land management projects - Reef Rescue, Reef Trust etc. Over the past 12 months a series of group activities were held across the catchment engaging with new grazing landholders.

Three grazing districts were targeted in the past year:

- 1. Lake Macdonald
- 2. Mary Valley
- 3. Susan River catchment

In November 2022 a grazing land management workshop and field walk was held at Cooroy in Lake Macdonald sub-catchment the partnership with Noosa Landcare. Approximately 30 grazing landholders attended this workshop where two properties on two different grazing land types were showcased for their high quality grazing land condition. The group of landholders identified that follow-up on forage budgeting would be required later in the year, given that the La Niña weather was forecasted to fade potentially leading to an El Niño event.

With this recommendation from the landholders

the MRCCC set about planning a series of pasture forage budget activities in Autumn 2023. The lack of rain in summer 2023 resulted in pasture forage budgeting becoming a very serious topic with grazing landholders - particularly in the past few months - coupled with the El Niño forecast for Spring and Summer 2024.

Since April 2023, the MRCCC has been hosting a series of pasture forage budgeting field days across the catchment to ensure that grazing landholders could be proactive and forecast their forage needs prior to this dry period given declining pasture reserves and the potential for loss of land condition.

In April 2023, a pastures forage budget field walk held in the Tuchekoi district on the Mary River attracted 29 grazing landholders from the Mary Valley, Kenilworth and Noosa hinterland. This property was selected to showcase a number of grazing land condition improvements the landholder has made progressively over the past 2 years, despite the floods inundating their river flats during 2022.

A follow-on pastures forage budget field walk was then held at Lake Macdonald in June 2023 with the same group of landholders able to inspect a different property and learn from an experienced producer with very good land condition. The learning and relationships formed by groups of landholders engaging with each other and building connections has been a highlight of this project. Such was the success of this format it was decided to hold another follow-on field walk at Lake Macdonald in July 2023 to inspect the condition of the property after the paddocks were grazed.

MRCCC and Noosa Landcare teamed up to deliver these field walks to bring grazing landholders together from different districts to observe and learn from each other.

This project also targets the **Susan River catchment** where there is presently industry restructuring occurring with the closure of the Maryborough Sugar Mill with many sugarcane properties converting to pasture/grazing land. The Susan River is contained in the Great Sandy Strait Ramsar wetland area.

In August 2023 a forage budget workshop and field-walk was held in the Nikenbah district on an ex-sugar cane property. This follows a successful grazing land management workshop held on the same property in April 2022. This landholder is progressively converting from cane to a grazing enterprise with improved pastures. This property is located in the headwaters of Susan River. Approximately 20 grazing landholders attended this workshop, which was opened by the deputy mayor of Fraser Coast council, Cr Denis Chapman. More field activities are planned in this important part of the Mary catchment.

# MRCCC-Seqwater Source Protection Partnership (Jinibara, Kabi Kabi country)

The 2022/2023 financial year was the second year of a five-year partnership between Seqwater and MRCCC. The purpose of the partnership is to improve water quality upstream of the drinking water offtakes operated by Seqwater at Kenilworth and Goomong. Accordingly, water quality improvement projects delivered by MRCCC are designed to reduce sediment, pathogens, and nutrient risks to drinking water offtakes.

#### 2022-2023 Annual Performance Report

MRCCC Catchment Officers are currently compiling the annual performance report for Seqwater, which is produced at the end of the financial year detailing information, photos and costings for each completed project. The table below provides a summary of projects completed in 2022/23. In addition, considerable MRCCC staff time has been spent developing and implementing the Upper Mary Rivercare Program, compiling information on all of our past Seqwater projects to develop an asset register for Seqwater, liaising with contractors and engaging experts such as engineers for dairy effluent infrastructure design.

| Project Type                                 | Outputs   |
|--|---|
| Revegetation                                 | 10,504 trees across 3.55 ha of riverbank                  |
| Riparian fencing                             | 1.2km   |
| Effluent management                          | 2 large-scale effluent management infrastructure upgrades |
| Vine weed control                            | 121 ha across 54 properties                               |
| Biocontrol releases                          | 20,100 biocontrol agents released                         |
| Kenilworth Mary River turtle nest protection | 11 clutches relocated, 155 hatchlings released            |
| Workshops                                    | 2 Upper Mary Rivercare Gateway Workshops                  |

#### 2023-2024 Annual Works Plan

MRCCC's annual works plan for 2023/24 has been approved by Seqwater. Projects include continued treatment of Cat's Claw Creeper (CCC) and Madeira vine (MV) upstream of Kenilworth, including the Mary River, Obi Obi Creek, Walli Creek, Chinaman Creek and Little Yabba Creek and Goomong including the Mary River, Chinamans Creek, Skyring Creek and possibly Yabba Creek.

Long-term weed treatment programs are incredibly important when working with pervasive and vigorous weeds such as CCC and MV. Madeira vine is fast becoming our core target species, particularly in Kenilworth, due to its prolific growth rate of up to one metre per week, and the time and effort required to control it. Unlike CCC vine, MV cannot be cut, as this results in viable aerial tubers falling to the ground to recolonize the area. The leaves and stem of the vine will also shoot when in contact with moist soil. Instead, our contractors need to carefully isolate canopy vines from trees and other vines, before scraping and painting the vine with a suitable herbicide.

Other project types planned through the Seqwater partnership include revegetation, improved dairy effluent management, fencing and off-stream watering. This year we have a specific project budget focused on expanding our engagement with Traditional Owners. The on-ground works budget for 2023/24 is \$550,000, with an additional \$1.9 million in anticipated co-funding and in-kind contributions.

This financial year, the MRCCC will also be managing five large-scale riverbank rehabilitation projects on behalf of Seqwater, which are funded by the state and federal government Disaster Recovery Funding Arrangements (DRFA) to aid in post-flood recovery of the river. These projects include;

- "The Island", Mary River at Kenilworth. Approximately 6,000 trees to increase resilience on the existing RTIV project site, including some repair work to 5-year-old pile field.
- Polley's Island, Mary River at Kenilworth. 6,000 trees to be planted at the Mary River and Obi Obi confluence to increase resilience in the area across the river from the drinking water offtake.
- Revegetation of approximately 12,000 trees along 3 adjoining properties on the Mary River at Kenilworth. The project extent includes an area of pile fields recently installed through the GBRF project.
- Repairs and further planting of 4,000 trees to an existing site at Goomong.
- New site at Goomong 2 properties on either side of the Mary River. Approximately 12,000 trees to be planted along 2km of riverbank, includes bank reprofiling and pile fields along 400m.



A DRFA project site in the Goomong reach



# **Upper Mary Rivercare Program**

The MRCCC developed the Upper Mary Rivercare program in conjunction with Seqwater and landholders in the Mary River catchment. This program is the first of its kind, with more of Seqwater's source protection partners in other catchments planning to implement similar programs in their areas. This year the program has taken off with a number of new participants signed up, and two Gateway workshops hosted in Kenilworth in October 2022 and June 2023. At the workshops, Upper Mary landholders were introduced to the Rivercare program and had the opportunity to connect with each other and learn about local water quality, water testing, waterway and ecosystem health and actions that can impact on water quality. MRCCC, Seqwater and landholders then gathered at Charles Street Park on the Mary River at Kenilworth to view and learn about the Kenilworth water offtake and catch up over a hot lunch. Upper Mary Rivercarers also attended workshops on the topics of regenerative grazing land management, farm fencing, forage budgeting and riverbank remediation.

The Upper Mary Rivercare program is currently open to landholders whose properties border the Mary River or tributaries within 25km upstream (south) of the Kenilworth town water offtake. If eligible, participating landholders can receive planning and multi-year funding support to implement on-ground projects focusing on improving riparian zone management and Kenilworth's water quality. Participating landholders can also attend workshops and field days, connect with other landholders in their area and share their insights and experiences with other landholders. MRCCC will deliver more Gateway workshops next year, when the program will be expanded to include the Coles Creek-Tuchekoi-Bollier area, encompassing properties up to 25km upstream of the Seqwater Goomong water offtake. During the last few months, MRCCC staff have completed Best Management Practice (BMP) assessments with participating landholders to develop multi-year property improvement plans that outline future projects to improve water quality.

Alana Ebert with the Upper Mary Rivercare signage provided to program participants.

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# Mary River Catchment Waterwatch Networks

The MRCCC's Waterwatch program rolled into its  $22^{nd}$  year of action making important observations on the recovery of the catchment in the aftermath of last year's floods. Our diligent citizen scientists have been out on the waterways to record water quality data including pH, dissolved oxygen, turbidity, electrical conductivity and temperature. Field notes are also taken on flora, fauna and changes to the waterways. These records are added to the previous 21 years of data, building on MRCCC's long term data set tracking the norms and changes throughout the catchment.

Notable fauna eg. platypus and turtle observations are added to the WildNet database, providing a vital contribution to our understanding of fauna populations in the area. MRCCC's Waterwatch networks cover much of the Mary River catchment, which extends from Jinibara Country in the south, through Kabi Kabi Country and out to Butchulla and Wakka Wakka Country in the north.

#### Welcome Shona!

Shona Sengstock recently joined the MRCCC to help with coordination of the Waterwatch networks. Shona has a background in environmental education and is currently studying animal ecology as well as being a bird rehabilitation specialist and active community member in Gympie. Shona has quickly become a valuable part of the MRCCC team and we're delighted to have her on board!



Bob and Lorraine Hood - 21 year veterans of the MRCCC's Waterwatch program!!

#### Council and community support

The Waterwatch program would not be possible without funding from the council areas within which we operate. With funding from Gympie Regional Council, post flood safety checks with volunteers at Waterwatch sites in the Gympie region were completed and continuation of the day-to-day coordination of Gympie's 6 networks maintained. With support from the Sunshine Coast Council, we were able to maintain the 2 Sunshine Coast hinterland networks and data collation for upcoming reports. With support from Noosa Shire Council, MRCCC produced a 2023 Water Quality Report for the Noosa Shire, combining data from Noosa Integrated Catchment Association, Noosa District Landcare Group and MRCCC to provide an update on the 2021 Water Quality Situation Analysis report. MRCCC and Noosa Shire Council have also continued with biannual catchment crawls in the Noosa Hinterland.

Our community collected data is supplemented by HQPlantations (HQP) monitoring waterways in the Toolara and Imbil forestry areas and by Queensland Parks and Wildlife Staff (QPWS) monitoring waterways in the Conondale National Park. These areas include tributaries with distinct water types and cover large areas of the catchment, so that data greatly increases our understanding of those waterways.

A huge thank you to all our volunteers. Having so many sets of eyes on our waterways is an invaluable resource and the Waterwatch program would not be possible without you. The logistics of moving Waterwatch kits in and out of MRCCC to all reaches of the catchment according to a set schedule would not be possible without the support of many individuals and local businesses. MRCCC would like to thank B & H Rural Tiaro, BOS Rural Kandanga, Amamoor Store, Barung Landcare, Mapleton Realty, Conondale Store and the Kenilworth Garage for holding and transporting Waterwatch kits. Thank you also to our Waterwatch delegates Garth Jacobson from Tiaro and Leslie and Craig Hanson from Kandanga Creek who have represented the Waterwatch Sector on the MRCCC for the past year.

If you are interested in being involved in the Waterwatch program, have easy access to the Mary River or one of its many tributaries and can contribute an hour a month, feel free to get in touch with MRCCC as there are always additional locations to be monitored.

\*\*Keira McGrath\*\*

| Waterwatch Network  | Waterways monitored 2022 - 2023  |
|---|--|
| Upper Mary (Mapleton, Maleny to Conondale)                                  | Mary River, Booloumba Creek, Fryers Creek South, lagoons at Russell Family Park, Little Yabba Creek, Lobster Creek, Scrub Creek and Skene Creek                                |
| Kenilworth (including Belli Park,<br>Brooloo)                               | Coonoon Gibber, Mary River   |
| East Gympie (Gympie, East Deep<br>Creek, Traveston)                         | Mary River, Deep Creek and Peter and Paul Watton Gully   |
| West Gympie (Pie Creek,<br>Langshaw, The Palms,<br>Glastonbury, Jones Hill) | Calico Creek, McIntosh Creek, Pie Creek, Snake Creek and Three Mile Creek  |
| Imbil to Amamoor (includes<br>Kandanga, Kybong)                             | Mary River, Amamoor Creek, Coles Creek, Kandanga Creek and Traveston<br>Creek  |
| Yabba Creek (Brisbane Girls<br>Grammar School and Imbil<br>HQPlantations)   | Araucaria Creek, Caseys Creek, Derrier Creek, Yabba Creek inc above Lake<br>Borumba  |
| Widgee and Wide Bay (including Sexton, Lower Wonga)                         | Mary River, Fat Hen Creek, Six Mile Plain Creek, Wide Bay Creek  |
| Tiaro   | Mary River, Deep Creek, Fay Smith Wetlands, Goora Creek, Gutchy Creek,<br>Ooramera Creek, Saltwater Creek, Chinaman's Creek and Ululah Lagoon                                  |
| Munna (Brooweena to Glen Echo)  | Calgoa Creek, Chinamans Gully, Dry Creek, Eel Creek, Munna Creek, Sandy<br>Creek and Teebar Creek  |
| Tinana (including Goomboorian)  | Big Sandy Creek, Coondoo Creek, Hines Creek, Ross Creek, Sandy Creek, Tinana Creek, Ulirrah Creek & Yards Creek  |
| Noosa Hinterland (Pomona,<br>Cooroy, Ridgewood)                             | Six Mile, Cooroora, School, Ferrells, Cooroy, Frogmouth, Waterford, Dath<br>Henderson, Jampot, Pinbarren, Coles, Skyring, Middle, Slate, Blackfellows and<br>Happy Jack Creeks |

### Waterwatch Volunteers 2022-2023

| Tiara Waterwatch            | Unner Many Waterwatch  | Muses Waterwatch                 | West Cympia                    |
|-----------------------------|--|----------------------------------|--------------------------------|
| Tiaro Waterwatch<br>Network | Upper Mary Waterwatch<br>Network   | Munna Waterwatch<br>Network      | West Gympie Waterwatch Network |
| Garth Jacobson              | Roger Westcott   | *Brett & Tammy Marsh             | Bruce McCulloch                |
| Owen & Lynda Thompson       | Robin and Norman Dobson  | *Cam & Lisa Hughes               | Pat Ridgewell                  |
| Ross Smith                  | QPWS - Bronwyn McAdam  | *lain Lewis                      | Joolie Gibbs                   |
| Brian Carter                | Eric Anderson  | *Kev & Helen Rogers              | Graeme Elphinstone             |
| 21.41.1 (34.13)             | Debbie & Sven Felius   | *Neville & Joy Turner            | Patriece & Dave Wippell        |
| lumbil / Austraces          | Jason Murphy   | *Ross & Michelle Kinbacher       | Ian Smith                      |
| Imbil / Amamoor<br>Network  | Wide Bay/ Widgee Network Rob Newcombe  | *Spencer & Leslie Innes          | Nonie Metzler                  |
| Glenda Pickersgill          | Anette Bambling  | Kerri Dixon                      | Robin Yule                     |
| Noo Dye                     | The second secon | *Waterwatching legends           | Tony DiCarlo                   |
| Leslie & Craig Hanson       | Jannette & Brad Parke  | for 20 years!!!                  | Tony Diedito                   |
| Cath & Col Robinson         | Stephen Horseman   | 101 20 years                     |                                |
| Marion Firns & Warren       | Mick Bambling  |                                  |                                |
| Crispin                     | Brian Thomas   |                                  |                                |
| Kenilworth Waterwatch       | Yabba Creek -Brisbane Girls  | Tinana Waterwatch                | East Gympie                    |
| Network                     | Grammar School and   | Network                          | * Bob & Lorraine Hood          |
| Des King & Colleen Ryan     | Imbil -HQPlantations   | Kevin Jackson                    |                                |
| lan Mackay                  | BGGS - Kim Wood, educators   | HQP - Rick Sizer<br>David Wilson | Ross Craig<br>Jude Coates      |
| Steve Dennis                | and students   | David Wilson                     |                                |
| Georgina Cooper             | HQP - Dan O'Regan & Kath   |                                  | *Waterwatch 21 year            |
| 5 000po.                    | Nash   |                                  | veterans                       |

Thank you for the contribution from the people who have retired from Waterwatch volunteering over the past year- Cecile Espigole, Bill Price, Matt Bateman, Jordon Bratton-Harris, Paul Munday, Ruth and Stephen Carter and Freya Jeffers. Welcome to our new volunteers -Jason Murphy and Georgina Cooper.

# Mary River Annual Water Quality Catchment Crawl 2023

The MRCCC's annual Catchment Crawl provides a snapshot of water quality throughout the entire Mary River catchment in early October each year. In 2023, sampling occurred at 34 sites along the Mary and its major tributaries. This covers the entire length of the catchment from the headwaters in the Conondale Ranges, travelling downstream to River Heads where the Mary River flows into the Great Sandy Strait. This year emphasis was placed on observations of how the catchment is recovering from last year's recordbreaking floods and notably, the dramatic drop in flows compared to the same time last year.

The 2023 Catchment Crawl was held on the 4<sup>th</sup> and 5<sup>th</sup> of October and was the 21<sup>st</sup> conducted since 2002. Collecting data at the same time in Spring before the wet season each year allows the comparison of changes, trends and observations over time. Data collected at each site includes physical and chemical water quality parameters of temperature, pH, electrical conductivity (salinity), turbidity, dissolved oxygen, nutrients (phosphorus and nitrogen) and total suspended solids (sediment load). *E. coli* (faecal coliforms) were also sampled at each site as well as *Enterococci* in one estuarine site. Observations are also noted for riparian zone and instream habitat condition, changes to stream and bank condition compared to previous years, weeds species, shading of

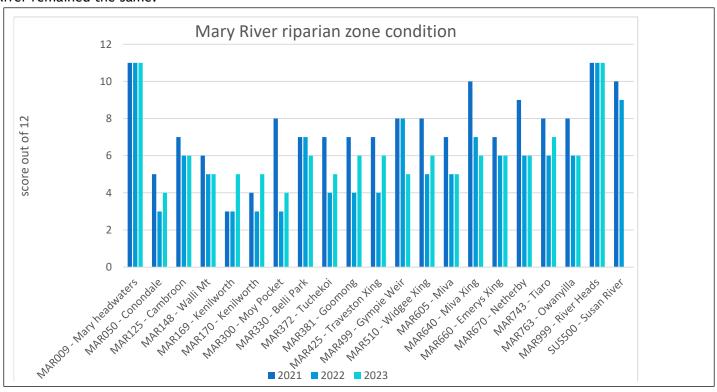


Caitlin Mill ready to collect a water sample at Walker Road Bridge

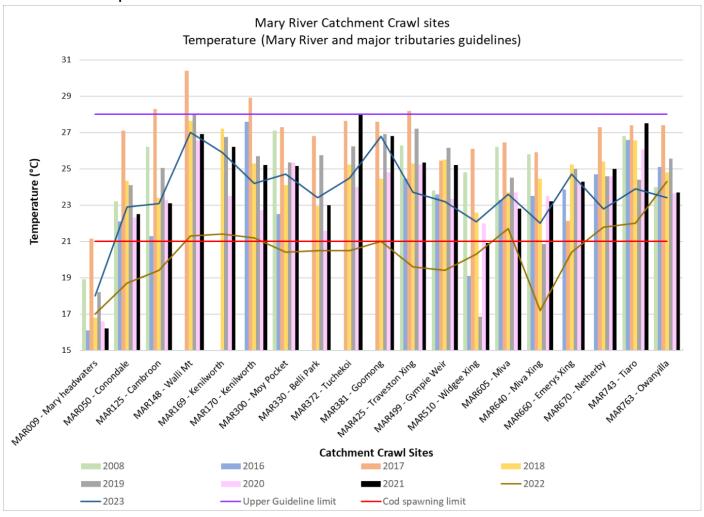
water, presence of vegetation layers, fauna and other general observations.

#### Flood Recovery

There was a focus this year on observing how the catchment is recovering from last year's floods. In comparison to last year, many sites demonstrated good recovery of aquatic macrophytes which were badly damaged or removed entirely by the floods. Riparian recovery was apparent at some sites, though most sites in the lower River remained the same.



Air and Water Temperature and River Flow



In the weeks prior to the 2023 Catchment Crawl, the average maximum air temperature was 26.8°C and the average minimum was 11.5°C. By comparison, in the week preceding the 2022 Catchment Crawl, the maximum average was 24°C and the average minimum was 13.8°C. In 2023, cloudy conditions were consistent on both days of the Catchment Crawl, which, combined with the warm air temperatures, resulted in an average water temperature of 23.6 degrees; which is very similar to 2021 with 23.85 degrees. In 2022 the average water temperature was 20.6 degrees. This year the water temperatures of most sites were well above the ideal Mary River cod spawning temperature of less than 21 degrees.

In contrast to last year, the river has had very low flows, comparable to 2021 when the river had similar levels of low to no flow conditions. In coming weeks the river is expected to cease to flow given the current El Niño weather conditions.

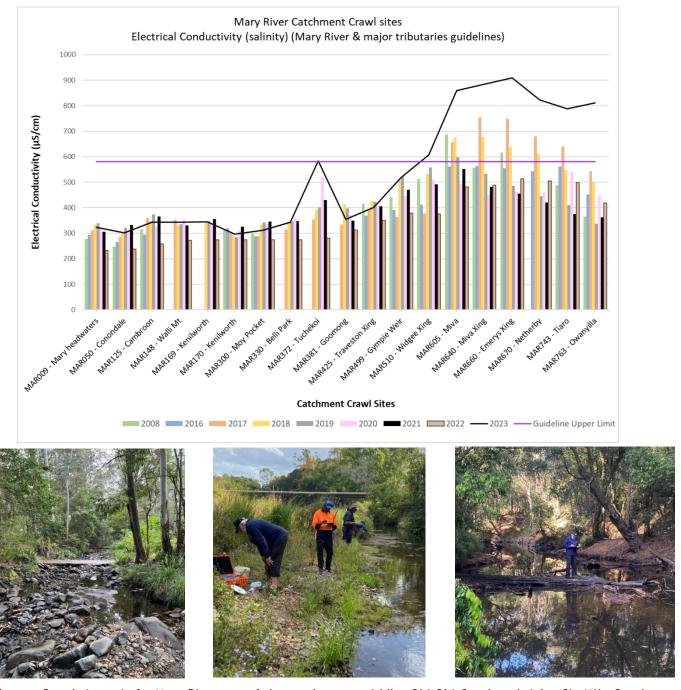
| Mary River flows (median value for September) | 2021<br>(megalitres/<br>day) | 2022<br>(megalitres/<br>day) | 2023<br>(megalitres/<br>day) |
|---|------------------------------|------------------------------|------------------------------|
| Kenilworth (Bellbird gauging station)         | 7                            | 60                           | 5                            |
| Gympie (Fishermans Pocket gauging station)    | 6                            | 1,184                        | 34                           |
| Miva gauging station                          | 53                           | 342                          | 42                           |
| Tiaro (Home Park gauging station)             | 33                           | 2,315                        | 43                           |

#### **Electrical Conductivity (salinity)**

This year the electrical conductivity levels were relatively high in the upper Mary River (above Gympie); with the Tuchekoi site recording the highest EC level in the past 20 years. This high salinity reading at Tuchekoi is a relatively new occurrence, first detected in 2020, falling in 2021 and 2022, and rising to near guideline levels in 2023. This is possibly due to a local salty aquifer discharging into the river near the sample site at Tuchekoi when river levels drop.

However in the lower Mary River (below Gympie) the historical trend of increasing salinity was recorded again in 2023; with record high salinity levels obtained from Widgee Crossing downstream. Sites downstream of Widgee Crossing were non-compliant with salinity guidelines for the Mary Catchment.

A possible explanation for the record high salinity levels in the lower catchment could be due to the adjacent groundwater/ aquifer alongside the Mary River becoming fully saturated following the 2022 floods and discharging salty groundwater directly into the river. It is following periods of consistent high rainfall that surface salinity outbreaks occur in the landscape due to the mobilisation of salts when the groundwater becomes saturated and rises to the soil surface.



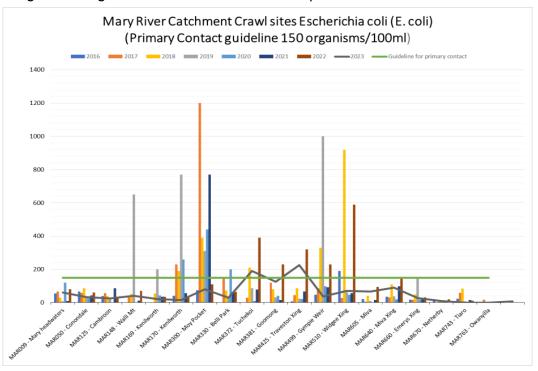
Catchment Crawl sites - Left, Mary River top of the catchment, middle, Obi Obi Creek and right, Six Mile Creek

#### Escherichia coli (E. coli)

Escherichia coli (E. coli) is a bacterium that is commonly found in the gut of humans and warm-blooded animals. E. coli levels are used as indicators of the presence of faecal material in water. It can indicate the possible presence of disease-causing bacteria, viruses and protozoans. Sources of bacteria include improperly functioning wastewater treatment plants, leaking septic systems, storm water runoff, animal carcasses and runoff from animal manure and poorly functioning animal effluent systems.

The guidelines for *E. coli* levels are the Primary Contact Guideline (ANZECC and ARMCANZ, 2000) and the value is 150MPN/100ml. The MPN - *most probable number* is the number of organisms (colonies) that are *most likely* to have been observed in the laboratory test.

On a positive note, the high *E.coli* levels experienced in recent years in the upper Mary River near Kenilworth have continued to be below guideline levels. However, like 2022 the *E.coli* levels in the Mary Valley from Tuchekoi to Traveston Crossing were unfortunately just above guideline levels (>150 colony forming units/100mL). Widgee Crossing which failed in 2022 is now compliant for *E.coli* levels.



The MRCCC acknowledges and thanks all the landholders and volunteers who attended and assisted with the 2023 Catchment Crawl, particularly Ian Mackay, Ian Smith, Melinda Serico, John and Mary King, Bob and Lorraine Hood, Tilly Davis, Kelsey Marek, Banti Fentie, Sydney Collett, David Sternberg, Jennifer Waithman, Amber Kelly, Cr Phil Truscott, Gail and Ross Smith, Glenda and Adrian Pitman, Jenny Robins and Grace Whiteside.

Thanks also to Seqwater for supporting this year's Catchment Crawl and the Queensland Department of Environment and Science for providing nutrient and total suspended solids analyses.





The Mary River upstream (left) and downstream (right) at Home Park in the lower Mary

### Find a Frog in February

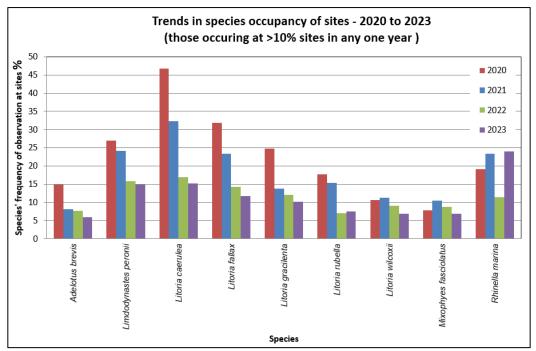
The citizen science program provides an opportunity for all residents and visitors to our area to make a difference to local frog fauna. Find a Frog in February (FFF), after seven years, has become a familiar annual event that many look forward to. In this part of the world people generally appreciate the opportunity to contribute to knowledge that makes a difference for one of our most threatened fauna groups; frogs. Over 40% of the world's frogs are threatened; at risk of extinction (International Union for Conservation of nature, 2023) if current trajectories continue.



This year approximately 330 people took time to observe, record, submit their interactions with frogs in the program area; Sunshine Coast, Noosa, Gympie and Fraser Coast (see map). Their efforts contributed to 1662 new records of 37 species (seven threatened). The data is provided to the Queensland WildNet database where is contributes to monitoring changes, informs planning that considers species' needs and can direct protection measures. The FFF 2023 Report is available with all previous annual reports at https://mrccc.org.au/frog-in-february/reports/.

Unfortunately, the past four years' data reveals a concerning trend of declining site usage (occupancy rate) by many commonly encountered species as shown in the graph below. Theories revolve around extended dry spring/summer periods that may be reducing breeding opportunities (however early 2022 saw exceptionally high rainfalls across the region), outbreaks of the amphibian Chytrid fungus (*Batrachochytrium dendrobatidis*) and habitat degradation. Likely there are several threats impacting together to put pressure on seemingly secure populations such as these. While we may not be able to determine all the cause/s straight away, FFF participants can monitor sites to gather more information, and increase frog resilience through provision of refuge habitats such as water bodies and complex, three-dimensional physical structures on land and in water. Habitats such as these create diversity of microclimates, increased food sources and increased breeding opportunities.

On a more heartening note, we discovered healthy populations of the vulnerable Giant barred frog (*Mixophyes iteratus*) along Obi Obi Creek in the Maleny reach. This is a stream-dependent species that was downgraded from endangered to vulnerable in 2021 under state and federal legislations, in part due to citizen science surveys that have increased known locations. During FFF workshop surveys in Maleny, we found that this species has recovered along upper Obi Obi Creek over the past 10 years. Prior to 2012 they were not being observed despite targeted surveys. However, several riparian revegetation projects undertaken since the late 1990s by Barung Landcare, locals, Maleny State School and at the Maleny Community Precinct, have given this species, and others, just what they need to 'come home' (click on the link to access the full article)



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Wathumba Swamp, K'Gari

### Response to Wildfire - aquatic fauna of the wallum wetlands of K'gari

K'gari (Fraser Island) may not look too far away when looking north from Howells Knob Lookout at Reesville. It's only 100 kilometres to the southern tip but, if you meander downstream along the Mary River, you will cover more than 300 kilometres and cross the Great Sandy Strait and Ramsar wetlands. Nevertheless, it's all connected by mainland-island interactions, primarily water, air, fauna and humans. The MRCCC has worked occasionally with island residents and the Fraser Coast Regional Council but in recent years, we have engaged in research to investigate how the wetland dependent fauna has fared following the wildfires in 2019 and 2020. Together, these fires burnt two thirds of the island's vegetation, wetlands and fauna with an intensity that left many wondering what recovery would look like.

Partnering with the Queensland Department of Environment and Science, Griffith University, the Burnett Mary Regional Group and Butchulla Traditional Owners, waterways, lakes and swamps were surveyed to collect data on wetland condition (Wetland Condition Assessment Tool - WetCAT methodology), water quality and populations of frogs and fish to determine monitoring protocols that may best address impacts and response to fire. The target species of the study are specialised for acidic waters of the coastal wallum systems that occur from the Hawkesbury River to Shoalwater. They are all threatened or near threatened (see table) due to habitat loss and degradation, hydrology alterations, pollution and, more recently evident, prolonged dry periods and increased incidence and intensity of fire.

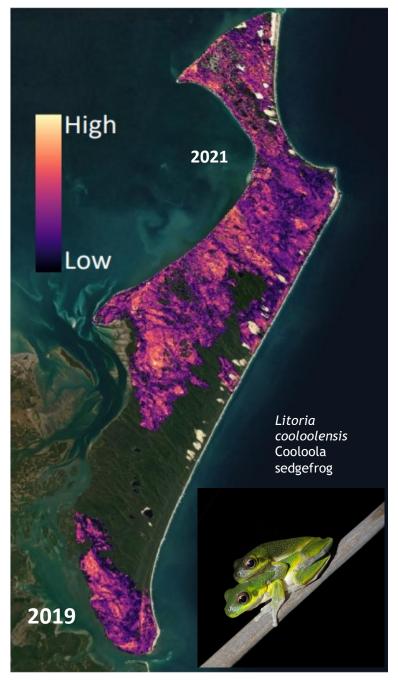
| Conservation Status                         |  |                               |  |  |
|---|--|-------------------------------|--|--|
| Species                                     | Qld Nature<br>Conservation Act<br>1992 | Commonwealth<br>EPBC Act 1999 | International Union for<br>Conservation of Nature<br>Red List 2023 |  |
| Crinia tinnula (Wallum froglet)             | Vulnerable                             |                               | Vulnerable   |  |
| Litoria cooloolensis (Cooloola sedgefrog)   | Near threatened                        |                               | Endangered   |  |
| Litoria freycineti (Wallum rocketfrog)      | Vulnerable                             |                               | Vulnerable   |  |
| Litoria olongburensis (Wallum sedgefrog)    | Vulnerable                             | Vulnerable                    | Vulnerable   |  |
| Pseudomugil mellis (Honey blue-eye)         | Endangered                             | Endangered                    | Endangered   |  |
| Nannoperca oxleyana (Oxleyan pygmy perch)   | Endangered                             | Endangered                    | Endangered   |  |
| Tenuibranchiurus glypticus (Swamp crayfish) | Endangered                             |                               | Endangered   |  |

After surveying 218 sites on K'gari six to 18 months after the fires and analysing the results, limited statistical evidence of the impacts of severe fires on fish and frogs was found. However, the following important new information was revealed, which bring more questions to the fore:

- Numerous new population records for threatened fish and frog species;
- No records of Swamp crayfish;
- Many prior known populations of fish and frogs now potentially locally extinct;
- Introduced fish and cane toads increasingly widespread;
- Oxleyan pygmy perch and ornate rainbowfish less abundant in fire affected sites however, little difference in occupancy;
- Localised extinction of Honey blue-eye at one site (drying of wetland around 2012);
- Introduced species more prevalent at fire affected sites and Gambusia holbrookii more abundant:
- Wallum froglet abundance is positively related to fire severity and time since fire;
- Cooloola sedgefrog abundance is positively related to time since fire.

#### Our summary concludes that:

- Monitoring protocols developed are suitable for the project type but can be refined through longer-term investigations;
- Resistance and resilience to fire impacts are likely to be highly context-dependent such as individual wetland characteristics (habitat type, size, depth of water table) and connectivity to source populations;
- Potentially some localised fish extinctions are due to fire, drying and perhaps introduced species;
- Threats will likely intensify due to ongoing climate change that affects fire regimes, drying of water bodies, increased



K'gari bushfire intensity 2019 and 2021

- temperatures, saltwater intrusion and invasive species spread;
- Further monitoring is necessary to determine base-line, pre-fire occupancy and abundance of species followed by monitoring of response immediately after fire and for the long-term;
- Multiple impacts should be addressed in future studies such as invasive species, drought, riparian degradation, lowering water tables, landscape-scale connectivity.

The full report is available at <a href="https://mrccc.org.au/wp-content/uploads/2023/10/2023-08-09-Kgari-Post-fire-">https://mrccc.org.au/wp-content/uploads/2023/10/2023-08-09-Kgari-Post-fire-</a> report.pdf

The project gave us opportunities to bring together people from several organisations and provided valuable time on-ground and through meetings to share knowledge and experience. Volunteers, students and locals had an opportunity to learn from experts in wetland characteristics, wetland ecology, fauna, bushfire impacts and monitoring techniques.

This project was funded by the Australian Government Department of Agriculture, Water and the Environment and the Queensland Department of Environment and Science.

#### Local government support in the Mary River catchment

Seven local government areas (LGAs) cover the Mary River catchment; Moreton, Somerset, Sunshine Coast, Noosa, Gympie and Fraser Coast and North Burnett. For some councils, the area of the catchment within their LGA is very significant in size and importance to their population, ecological well-being and economy. Three Biospheres now exist side-by-side; Sunshine Coast, Noosa and Great Sandy Biospheres - a unique first, not replicated anywhere else in the world.

The MRCCC gratefully receives support from four councils with the greatest catchment coverage to continue our presence in the catchment, connect with the community, provide extension and education services, link landholders with projects to rehabilitate and protect environmental values, carry out biodiversity and water quality investigation and monitoring and many, many other activities.

Through their ongoing support for the MRCCC, the Sunshine Coast Council is a major partner, bringing together programs such as:

- Landholder extension in the upper Mary
- Long-term frog monitoring (18 years)
- Find a Frog in February (seven years)
- Delivery of the Landholder Environment Grant program
- WaterWatch (20 years)
- Student workplace learning program (11 years)
- Waterway rehabilitation and investment planning
- Large-scale river bank restoration projects

Three-year partnerships enables the MRCCC to have a united and stable presence in the community, delivery of co-funded programs, shared learnings and joint progress towards a healthier hinterland. The benefits of a well-functioning landscape translate to the surrounding LGAs and downstream all the way to the Great Sandy Ramsar wetland and the Great Barrier Reef.

Noosa Shire Council, while providing funding support for many years, has recently embarked on three-yearly partnerships with community groups. The arrangement helps the MRCCC work in the Six Mile Creek catchment, eastern tributaries (Blackfellow, Happy Jack and Skyring Creeks) and coastal catchments through Find a Frog in February, long-

North Burnett
Council

Fraser Coast
Regional Council

Regional Council

Somerset
Regional Council

Sunshine Coast
Regional Council

term frog monitoring, Waterwatch and Grazing Land Management programs, often in partnership with other natural resource management groups, agencies, education institutions and council staff.

Gympie Regional Council supports our Waterwatch and Find a Frog in February citizen Science programs. The latter is also funded by the Fraser Coast Regional Council.

Funding is never taken for granted and is used wisely to deliver benefit to the broad community, natural ecosystems, land-use practice, infrastructure and industry. It is leveraged to expand programs so that, even modest support can grow to have increased impact. A cooperative, broad view of the catchment and surrounds helps to address the challenges that our region faces.





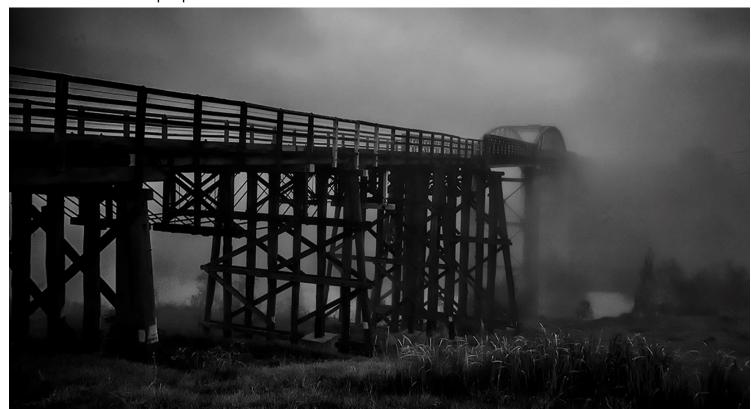
Above left: Brad Wedlock discusses riparian issues with Sunshine Coast landholder and Council staff.
Right: Waterwatch laboratory full of kits ready to be distributed to the networks

#### Mary River Month and the Spring in the Mary photo competition

Mary River month incorporates a range of activities aimed at highlighting many of the special features of the Mary River catchment, and starts with World Rivers Day on the 4<sup>th</sup> Sunday in September. Notable activities include Save the Koala day, National Water Week, the Aussie Bird Count, the MRCCC's annual catchment crawl, Bat Week and the MRCCC's AGM. Mary River month finishes on the 11<sup>th</sup> November, as a permanent reminder of the anniversary of the fateful day that former federal Environment Minister Peter Garrett said "No" to the Traveston Crossing dam proposal.

Mary River month also includes the Spring in the Mary photo competition which is supported by Murray Views Gympie, Noosa Landcare, the Burnett Mary Regional Group, the Greater Mary Association, HQPlantations who provide cash prizes for the winning entries. Thank you to competition Judge Bob Simpson who has to make the very hard decisions each year from a very high standard of entries. Congratulations to last year's winner, lan Smith from Gympie who's striking image of the Dickabram Bridge edged out the competition.

Entries for this year's competition close on 1<sup>st</sup> November and can be sent to <u>springinthemary@mrccc.org.au</u> with a limit of three entries per person.







2022 Spring in the Mary photo competition winners: Top - Ian Smith, Dickabram Bridge, below left Rural Winner David Clark's Spring Cattle count and right People's Choice winner, Julie Hempsell's Damselfly on my nose.





# Art celebrating life

The hugely successful, multi-faceted 22.96 Receding exhibition at the Gympie Regional Gallery earlier this year was a collaboration of three artists; Joolie Gibbs, Miriam Innes and Leroy Todd. The exhibition commemorated the 2022 record floods with many of the artworks consisting of materials made from flood debris. A series of five exquisite charcoal and graphite works of Mary's threatened species, beautifully crafted by Miriam Innes, drew considerable attention in the exhibition, partly because they were accompanied by QR codes which enabled the viewer to see, on a mobile phone, video footage of the real thing. It was a feature enthusiastically demonstrated by younger members of the viewing audience.

The artworks were auctioned after the exhibition with Rob McKay of Gympie being the successful bidder. Rob was delighted with his new acquisitions and met up with artist Miriam Innes and MRCCC's chairman Ian Mackay to receive the donated artworks. Proceeds of the auction were donated to the MRCCC

Top: Miriam Inness' "36 M Square" 36 metres of hand-cut synthetic paper reflecting flood debris and above: Rob McKay, Miriam Innes and Ian Mackay presenting Rob with the artworks.







Successful Mary River Rehabilitation site, Kenilworth!

# MRCCC Workshops, festivals, field-days, presentations (2022-2023)

| When                           | Activity   | Partners   | Notes   |
|--------------------------------|--|--|---|
| All year                       | Kenilworth<br>Information Centre                       | Sunshine Coast Council   | Servicing MRCCC project participants in the upper Mary River catchment through regular presence in the town of Kenilworth.                          |
| November<br>2022               | Seqwater partners forum                                | Seqwater, MRCCC,<br>NDL, and others from<br>SEQ  | Presentation on the work of MRCCC in the Kenilworth & Mary Valley districts   |
| November<br>2022               | Mary River Recovery project stakeholders forum         | Great Barrier Reef<br>Foundation, BMRG,<br>Seqwater, Sunshine<br>Coast Council, DNRM,<br>DES, Noosa Landcare | Field day held on Mary River, Kenilworth to<br>showcase the Charles Street River Park, Carters<br>and Mackie riverbank rehabilitation work          |
| November<br>2022               | Grazing land<br>management<br>workshop                 | Noosa & District<br>Landcare Group   | Grazing land management workshop and field walks on two properties in the Lake Macdonald sub-catchment  |
| November -<br>December<br>2022 | Water quality monitoring training                      | Noosa Integrated<br>Catchment Association<br>volunteers  | MRCCC and NICA jointly organised Waterwatch training for volunteers, including training with Kin Kin Creek volunteers on-site                       |
| December<br>2022               | MRCCC briefing   | Fraser Coast Regional<br>Council, Mayor, Tiaro<br>Landcare   | Workshop with Cr George Seymour, on MRCCC and Tiaro & District Landcare activities in FCRC  |
| January<br>2023                | Noosa hinterland catchment crawl                       | Noosa Council, Noosa<br>Landcare,  | Water quality monitoring in the Noosa hinterland  |
| January<br>2023                | Mary River turtle<br>nest protection<br>program        | MRCCC, many volunteers   | Release of Mary River turtle hatchlings into the river at Kenilworth  |
| February<br>2023               | Mary River turtle predator control                     | Local government in the MRC  | Meeting to coordinate predator control in Mary<br>River turtle nesting bank sites   |
| March 2023                     | Moonaboola canoe<br>trip                               | Jinibara, Kabi,<br>Butchulla, BMRG,<br>Griffith University   | Canoe trip on Moonaboola (Mary River) with traditional owners, and scientists capturing flood data, threatened species information etc              |
| April 2023                     | Regional Science<br>Forum, field-day at<br>Kenilworth  | BMRG, Dept of<br>Resources, landholders  | Field day held on Mary River, Kenilworth to<br>showcase the Mackie and Clarke riverbank<br>rehabilitation work post flood                           |
| April 2023                     | Great Sandy Strait<br>flood impact<br>studies findings | Dept of Environment & Science, James Cook University   | Presentation of interim findings for the studies conducted post-floods in Great Sandy Strait  |
| May 2023                       | Walking the<br>Landscape process<br>for Tinana Creek   | University of Southern<br>Qld  | Representatives from Tinana Creek catchment -<br>landholders, traditional owners, HQP, DES, FCRC,<br>GRC to identify WQ and vegetation significance |
| May 2023                       | Sunshine Coast<br>Council                              | Sunshine Coast Council   | Consultation on Sunshine Coast Council Livability Strategy (planning scheme)  |
| May 2023                       | Aquatic conservation assessment                        | Dept of Environment & Science  | Consultation on Aquatic Conservation Assessment, flora, fauna, ecosystems for MRC   |
|                                |  |  |   |

| When              | Activity   | Partners   | Notes  |
|-------------------|--|--|--|
| May 2023          | Upper Mary River field tour                          | Griffith University  | Field trip with US university students - based from Crystal Waters   |
| June 2023         | Lake Macdonald<br>Pasture Forage<br>budget field-day | Noosa & District<br>Landcare   | Forage budget field-walk held on ex-dairy property in Lake Macdonald district  |
| June 2023         | Upper Mary River<br>gateway workshop<br>Kenilworth   | Upper Mary River<br>landholders and<br>Seqwater                                      | Seqwater partnership program activity  |
| June 2023         | Mary River Festival,<br>Kandanga                     | Save the Mary River<br>Group   | MRCCC display at Mary River Festival.<br>Presentation in speakers tent.  |
| July 2023         | Lake Macdonald<br>Pasture Forage<br>budget field-day | Noosa & District<br>Landcare   | Follow-up forage budget field-walk held on ex-<br>dairy property in Lake Macdonald district  |
| July 2023         | Noosa hinterland catchment crawl                     | Noosa council  | Water quality monitoring in the Noosa hinterland   |
| July 2023         | Annual Erosion<br>Forum                              | CSIRO, Reef Trust  | MRCCC hosted annual Erosion Forum for Reef<br>Trust project partners - Gympie  |
| July 2023         | Erosion Forum tours                                  | CSIRO, Reef Trust,<br>OGBR, GBRF, reef<br>groups                                     | 1 day tour of riverbank rehabilitation sites, 2-day tour of gully remediation sites  |
| July 2023         | Dirt road<br>management                              | Australian National<br>University, Noosa<br>Council                                  | Preliminary workshop on dirt road management for sedimentation/runoff  |
| July 2023         | Noosa Council<br>water quality<br>report             | Noosa Council, NICA,<br>NDL  | Noosa water quality data analysis report presentation  |
| August 2023       | Susan River Pasture<br>Forage budget<br>field-day    | Fraser Coast grazing landholders   | Forage budget field-walk held on ex-cane property on Nikenbah district in the Lower Mary River   |
| August 2023       | Cats claw vine meeting                               | Gympie Council,<br>Gympie & Noosa<br>Landcare  | Six Mile Creek Cats Claw Vine project meeting to discuss landholder workshops  |
| August 2023       | Exploring STEM in<br>the Mary River<br>forum         | Mimburi  | National Science Week Forum at Mimburi showcasing the aspects of science involved in land and water management                         |
| August 2023       | Moonaboola canoe<br>trip                             | Jinibara, Kabi,<br>Butchulla, BMRG,<br>Griffith University                           | Canoe trip on Moonaboola (Mary River) with traditional owners, and scientists capturing flood data, threatened species information etc |
| August 2023       | Riverbank<br>rehabilitation<br>inspection            | Great Barrier Reef<br>Foundation   | Delegation from GBRF and technical specialist,<br>Geoff Titmarsh to inspect riverbank projects   |
| September<br>2023 | Invasive pest forum                                  | Sunshine Coast Council   | Presentation on Mary River turtle program at Obi<br>Obi Hall   |
| September<br>2023 | Freshwater turtle training                           | Gympie, Sunshine<br>Coast Council, Gympie<br>& Noosa Landcare,<br>traditional owners | Freshwater turtle training - Gympie, Pomona<br>hosted by Marilyn Connell, Keira McGrath, Caitlin<br>Mill, Eva Ford                     |

| When              | Activity                                   | Partners                                      | Notes  |
|-------------------|--|---|--|
| September<br>2023 | Cultural heritage training                 | Jinibara, Lake Baroon<br>Catchment Care Group | Cultural Heritage training with Jinibara on country  |
| September<br>2023 | Small farms field walk                     | Sunshine Coast Council                        | Speaker at Small Farms Field Walk, Coolabine   |
| September<br>2023 | Launch of riverbank stabilisation funding  | Senator Nita Green                            | Senator Nita Green's launch of Riverbank stabilisation funding at Kenilworth                 |
| October<br>2023   | Annual catchment crawl                     | MRCCC, many volunteers                        | Water quality monitoring of 32 sites along the Mary River & tributaries over 2 days          |
| October<br>2023   | Walking the<br>Landscape - Tinana<br>Creek | University of Southern<br>Qld                 | Tour of Tinana Creek with stakeholders to verify the Walking the Landscape workshop findings |

Educational activities including Find-a-frog in February (FFF)

| Date              | What activities                               | With whom  | notes   |
|-------------------|---|--|---|
|                   |   |  |   |
| September<br>2022 | Aquatic<br>macroinvertebrate<br>survey        | East Deep Creek State<br>School                  | Catchment, water quality and aquatic macroinvertebrates   |
| September<br>2022 | Virtual Guest Lecture                         | University of Sunshine<br>Coast                  | 3 <sup>rd</sup> year Sustainability course - view points from ecology professionals   |
| December<br>2022  | Aquatic<br>macroinvertebrate<br>survey        | Jones Hill State School                          | Catchment, water quality and aquatic macroinvertebrates   |
| May 2023          | Water quality and riparian zones presentation | Noosa & District<br>Landcare                     | Workshop with Noosa Landcare members on<br>water quality in the Noosa Shire, and field<br>walk on upper Six Mile Creek property |
| Feb 2023          | Find a Frog in February                       | Conondale community                              | Workshop and frog surveys at Conondale  |
| Feb 2023          | Find a Frog in February                       | Mimburi, Noosa State<br>High School, Belli Creek | Frog monitoring on Belli Creek  |
| Feb 2023          | Find a Frog in February                       | Tewantin   | Workshop and frog monitoring in freshwater wetlands with Tewantin State School  |
| Feb 2023          | Find a Frog in February                       | Maleny community                                 | Public presentation and frog survey at Maleny and 2 <sup>nd</sup> workshop with Maleny State School                             |
| Feb 2023          | Find a Frog in February                       | Noosa Landcare                                   | Presentation to landcare members on FFF program and frog monitoring - webinar   |
| Feb 2023          | Find a frog in February                       | Peregian community house                         | Presentation to members on FFF program and frog surveys in coastal wetlands   |
| Feb 2022          | Find a frog in February                       | Land for Wildlife, Noosa                         | Presentation to members on FFF program and frog monitoring at Cooroora Creek, Pomona  |
| Feb 2023          | Find a frog in February                       | Cooloola Cove<br>community                       | Public presentation (incl Waterwatch) and frog surveys in Great Sandy Strait wetlands   |
| Feb 2023          | Find a frog in February                       | Maryborough                                      | Presentation on FFF and frog surveys  |
| Feb 2023          | Frog workshop,<br>Amamoor                     | Amamoor community                                | Frog workshop and survey at Amamoor hall  |

| Feb 2023          | Frog workshop, East<br>Deep Creek         | East Deep Creek School          | Frog workshop and monitoring at East Deep<br>Creek                  |
|-------------------|---|---------------------------------|---|
| Feb 2023          | Noosa Biosphere think tank workshop       | Noosa                           | MRCCC participated in a Noosa biosphere think tank workshop         |
| Feb 2023          | Gympie Regional Art<br>Gallery exhibition | Gympie                          | "22.96 receding" flood exhibition opening                           |
| May 2023          | Waterwatch<br>demonstration and talk      | University of Sunshine<br>Coast | Water quality workshop with environmental science students from USC |
| September<br>2023 | Aquatic<br>macroinvertebrate<br>survey    | East Deep Creek State<br>School | Catchment, water quality and aquatic macroinvertebrates             |

# Conferences and seminars

| When       |              | What   | notes   |
|------------|--------------|--|---|
| April 2023 | Presentation | Paddock to Reef Science Forum,<br>Mimburi              | "Riverbank rehabilitation - a landholder case study"        |
| June 2023  | Presentation | Reef Trust Erosion Forum, Gympie conference            | "Riverbank rehabilitation projects - post flood assessment" |
| June 2023  |              | International freshwater ecosystem symposium, Brisbane | attendance  |

# Representations during 2022/23

| When                | What   | Who   | notes   |
|---------------------|--|---|---|
|                     | Mary River Recovery<br>Steering Group  | Great Barrier Reef<br>Foundation, BMRG,<br>Alluvium         | Quarterly meetings with the steering group to deliver the Mary River Recovery project                     |
|                     | Mary Basin Water Plan  | Dept of Resources,<br>Manufacturing & Water                 | MRCCC met with representatives from the<br>Water Department on the review of the Mary<br>Basin Water Plan |
|                     | Borumba Dam pumped hydropower plan   | Dept of Energy  | Representatives on Environment Stakeholder<br>Group   |
|                     | Qld Water Futures in<br>2050 - drivers workshop  | Australian National<br>University                           | Jess Dean and Steve Burgess representing MRCCC  |
|                     | Great Sandy Strait<br>Ramsar Management<br>Advisory Group  | BMRG  | MRCCC representative on Group   |
|                     | Qld Frog Society   | Qld Frog Society  | Mary River Coordinator  |
|                     | Waterwatch Australia<br>Network  | State representatives from Waterwatch groups meet quarterly | Queensland representative for Waterwatch<br>Australia   |
| July 2022           | Burnett Mary Regional<br>Assessment of Fauna &<br>Flora Conservation -<br>expert elicitation panel | BMRG  | MRCCC representatives on Group with other regional fauna and flora experts                                |
| July-August<br>2022 | Lower Obi Obi Creek<br>Rehabilitation Plan   | Sunshine Coast Council                                      | MRCCC representatives on Plan development with DNRM, Seqwater, Alluvium                                   |

# MRCCC Research Project Collaboration

|  | Project<br>collaboration                                  | Description   |
|--|---|---|
| Cane Toad Challenge<br>(CtC)                     | University of<br>Queensland<br>Molecular Biology<br>Unit. | MRCCC is an Affiliate Member of the CtC program developed<br>by UQ. This program enables the MRCCC to disseminate the<br>tadpole baits and traps to community members for tadpole<br>control.                               |
| Mary River turtle nest protection                | Tiaro & District<br>Landcare                              | Community and landholder links provided by the MRCCC to assist with the turtle nest protection program and its expansion upstream in to the Kenilworth reaches.   |
| Frog Data management                             | FrogID, WildNet re<br>data harvest                        | Citizen Science collaboration project between MRCCC Find a Frog in February and Australian Museum FrogID program with Queensland Government WildNet database team involved to data harvest from Australian Museum database. |
| Wallum frog and freshwater fish recovery         | Griffith University                                       | Investigating the recovery of wallum frogs and freshwater fish following the Black Summer bushfires in 2019 on K'gari (Fraser Island)   |
| Mary River turtle -<br>predator<br>understanding | Charles Darwin<br>University, Tiaro<br>Landcare           | Tag and release for catfish - tracking catfish movements  |

# **Submissions**

| Date            | То  | Issue   |
|-----------------|---|---|
| October<br>2022 | Federal Environment Minister - Tanya<br>Pilbersek | Submission re the Mary River Threatened Aquatic<br>Species Recovery Plan in relation to recent<br>announcements by the Minister |
| October<br>2022 | Dept of Environment and Science                   | Comments in relation to the Great Sandy Marine Park zoning review   |
| October<br>2022 | Seqwater CEO                                      | Noting the MRCCC's position in relation to no further interbasin transfers of water in the upcoming SEQ Water Security Strategy |
| Feb 2023        | Dept of State Development                         | Wide Bay Burnett Regional Plan submission   |
| April 2023      | Dept of Resources                                 | Mary Basin Water Plan submission  |
| March 2023      | Australian Government, EPBC unit                  | Exploratory works submission for Borumba Dam pumped hydro-power project   |
| Sep 2023        | Dept of State Development                         | Comments in relation to the draft SEQ Regional Plan review  |



