

2020/2021

ANNUAL REPORT



Burnett Mary
REGIONAL GROUP
Practical Solutions for Natural Resource Management

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MESSAGE FROM OUR CEO AND CHAIR



On behalf of the Board of Director, Management and staff, we are pleased to present the 2020-2021 annual report for Burnett Mary Regional Group.

We have been very fortunate to achieve some noticeable milestones this year, with the establishment of our regional consortiums, winning \$20 million in project funding, relocating our office to the Ag Tech Hub in Bargara, strengthening our Traditional Owner alliance and developing new partnerships with valued stakeholders. We have also rolled out the start of our Junior Advisory Group, with membership available to the 13-17 years age group.

Our staff have worked tirelessly to deliver projects and meet milestones across a range of funding programs, and we thank them for their valued efforts. Without the support of our Board and strategic partners these achievements would not be possible.

We are proud to thank Landcare groups, research partners, landowners, traditional owners, Australian and Queensland Government industry partners and the community for their wonderful support and involvement in making this year a great success.

The 2020-2021 financial year will be one that will be remembered for a long time by all Australians. COVID-19 has changed our work and has also challenged how we operate and engage with stakeholders. We are now more

technically diverse and online workshops have become the normal communication method for National Forums.

We continue to seek opportunities to diversify our funding model, to build long-term sustainability to protect and enhance the agriculture and natural environment for the Burnett Mary Region for future generations. BMRG has purchased a 2,400 hectare property located five minutes south of Miriam Vale on Blackman Gap Road, with water available via a pump from Blackman Gap Creek. The property is ideal for research projects and training workshops with our community members and project partners. The \$399,000 property price represents good value for this asset rich property.

We thank our board, staff, project & industry partners and traditional owners for their continued efforts in delivering great outcomes for our region. We look forward to strengthening our established working relationships with our valued partners in all of our future projects.

Tony Ricciardi
Chairman

Sheila Charlesworth
Chief Executive Officer & Company Secretary

FINANCIALS AT A GLANCE



Ecosystem Management \$1,655,040

PROJECTS

Protecting Saltmarsh and Marine Turtle
Monitoring, Restoring Great Sandy Ramsar, Nest
to Ocean, White Throat Turtles, Queensland
Disaster Resilience Fund
Natural Capital
Bushfire Recovery

Agricultural & Extension Services \$1,282,080

PROJECTS

Regional Extension Coordinator,
Productive and Resilient Farmers, Flex Fund and Peer 2 Peer,
GRASS, Core RALF

Water Quality \$4,297,713

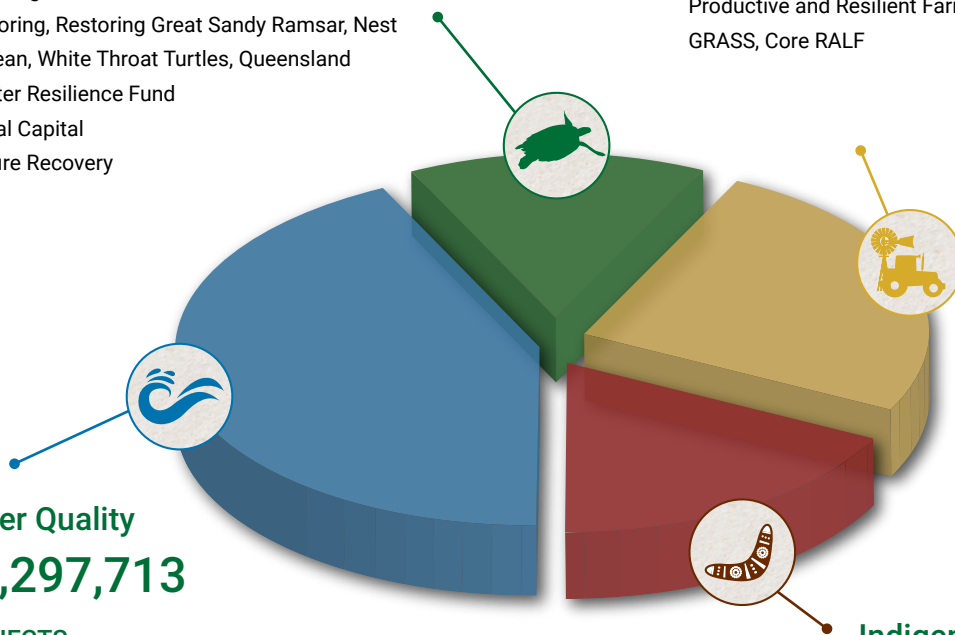
PROJECTS

Better Beef for the Reef, Paddock to Reef, Reef Water
Quality, Saving Soil in the Burnett Mary, Reef Trust
Discover Coast, Mary River Recovery Project, Reef
Trust Improving Land Management and Water Quality
in Burnett River

Indigenous Engagement \$753,661

PROJECTS

Bunya Mountain Murri Rangers



Note: Expended funding for 'Core Services' under the Australian Government's Regional Land Partnerships (RLP) program and expended funding for 'Regional Coordination and Evaluation' under the Queensland Government's Natural Resources Investment Program (NRIP) has been apportioned across the four program areas represented in this table.

STRAIT EXPECTATIONS – RESTORING THE GREAT SANDY STRAIT RAMSAR WETLAND



Photo: *Completed streambank rehabilitation*

FUNDED BY:

Australian Government through National Landcare Regional Land Partnerships Program

Great Sandy Strait is a sand passage estuary between the mainland and the World Heritage-listed K’Gari. It is the largest area of tidal swamps within the South East Queensland bioregion, consisting of intertidal sand and mud flats, extended seagrass beds, mangrove forests, salt flats and saltmarshes and coastal wallum swamps.

The Strait is an exceptionally important feeding ground for migratory shorebirds, marine fish, crustaceans, oysters, dugong, sea turtles and dolphins. To protect this fragile ecosystem, the Strait Expectations Program focuses on enhancing the Ramsar listed Great Sandy Strait wetlands and improving the quality of water entering the wetland system and subsequently the Great Barrier Reef.

This Program achieves its objective through erosion management, removing weeds of national significance, habitat revegetation and managing feral pig populations.

BMRG and its key partners – Mary River Catchment Coordinating Committee, Noosa and District Landcare Group, Alluvium Consulting and GWT Earthworks completed a streambank rehabilitation project for the Mary River at the Samples family property. The works restored a section of riverbank that was previously near vertical, approximately 10m in height, 500 m in length and devoid of vegetation. Bank re-profiling, timber pile fields installation,

reinstatement of natural riffle zones, installation of jute matting, and hydro mulching of the exposed earthworks were successfully completed in November 2020. This streambank remediation has reduced the total amount of sediment entering the catchment and eventually the Great Barrier Reef by 90% or 5,587 tonnes annually.

BMRG in partnership with Hinterland Bush Links, Noosa & District Landcare Group and Lower Mary River Land and Catchment Care Group effectively treated 41.27 hectares in Great Sandy Strait of weed vines and re-vegetated 24.15 hectares. These initiatives enhanced ecological connectivity and biodiversity and improved riparian zone health.

Managing feral pig populations in the Great Sandy Strait Ramsar wetlands reduces damage to the distinct ecosystem. Feral pig control was successfully undertaken on 1,013 ha of land with assistance from Bush to Bay Weed Control and Butchulla Land and Sea Rangers.

Five days of intensive survey of threatened aquatic species was undertaken on K’gari. The survey was led by a Griffith University research team and actively supported by BMRG and Butchulla Land and Sea Rangers. The survey filled knowledge gaps around fire impact on wallum wetlands and to maintain Great Sandy Strait Ramsar accreditation.

NEST TO OCEAN - TAKING TURTLES OFF THE MENU ROUND 5



FUNDED BY:

Queensland Government through Nest to Ocean

The Burnett Mary region beaches are unique, having both major and minor marine turtle rookeries where loggerhead, green and flatback turtles come to nest each year. One of the main threats to these species is the introduced European red fox. The Nest to Ocean Program aims to protect marine turtle eggs and hatchlings from this predator.

In a continued effort to protect marine turtle populations, BMRG and partners Gidarjil Land and Sea Rangers, Queensland Parks and Wildlife Service, turtle volunteer groups and Bundaberg Regional Council are proactively controlling red fox populations at Wreck Rock, Mon-Repos, Moore Park beach and areas close to the nesting beaches.

Predator population management has been underway for five nesting seasons and involves setting monitoring cameras, active den identification and subsequent fumigation and/or trapping.

Nest To Ocean - Taking Turtles Off The Menu Round 5 achieved positive results in monitoring and hatchling protection.

38 active dens were identified and fumigated and nine red foxes were trapped over a 30 day period. This result was achieved with Tom

Garrett (Southern Queensland Landscapes), his conservation dog Rocky and Gidarjil Land and Sea Rangers. This particular collaboration also provided an opportunity for the Gidarjil Land and Sea Rangers to share their country knowledge and to gain experience with feral animal eradication.

Reducing fox population combined with nest protection and nest relocation will have had a positive impact on turtle numbers that will be realised over a period of decades. However, without current persistence, dedication, and community education this future outcome will not be achieved.



Photo: BMRG school information session

NEST TO OCEAN - TAKING TURTLES OFF THE MENU ROUND 6



Photo: Revegetation beach work

With additional funding received in April 2021, Nest to Ocean – Taking Turtles Off The Menu Round 6 saw BMRG work with Bundaberg Regional Council, Gidarjil Land and Sea Rangers, Oaks Beach turtle monitoring volunteers, Invasive Plant and Animal Services and Silent Night Pest Management to achieve further positive results for the program including:

- Managing European red fox population in the region through trapping and fumigating active dens;
- Removing marine debris including microplastic from 10 hectares of Bargara's beaches to reduce harm to marine fauna such as turtles;
- Improving turtle incubation success by eradicating 2 hectares of invasive weeds;
- Revegetating two hectares of coastal habitat to reduce light pollution, increase shade and stabilize sand banks;
- Engage with community through events to increase awareness about marine turtle challenges in the Burnett Mary region.



Photo: BMRG Gidarjil consultation

BMRG worked with Bundaberg Regional Council, Gidarjil Land and Sea Rangers, Oaks Beach turtle monitoring volunteers, Invasive Plant and Animal Services and Silent Night Pest Management to achieve further positive results.



Photo: Revegetation beach work

PROTECTING SALTMARSH AND MARINE TURTLE MONITORING



FUNDED BY:

Australian Government through National Landcare Regional Land Partnerships Program

The Burnett Mary region supports a significant breeding population of endangered loggerhead turtles and vulnerable green and flatback turtles.

Work undertaken by turtle volunteers each year is extremely valuable. BMRG proudly sponsors marine turtle monitoring groups at Wreck Rock, Moore Park Beach, Point Vernon, on K'gari, Lady Musgrave and Lady Elliott Islands.

During 2019 and 2020 BMRG assisted with insurance cover for all turtle monitoring groups operating in the Burnett Mary area. This support was required to continue the monitoring program.

The turtle monitoring groups undertook marine turtle monitoring in line with the standard methodologies of the Queensland Turtle Conservation Project. This included but was not limited to:

- Day and night beach patrols late October to mid-March to locate nesting turtles for scientific data collection and egg relocation if required;
- Data collection included species ID, tag number recovery, tagging new turtles, measurement, photographs and general condition;
- Nest assessment followed hatchlings to determine clutch sizes and emergence success rates;
- Implementing control measures to prevent nest depredation on beaches.

The program also organises marine debris beach clean-up activities and community education. A 5km strip of Wreck Rock beach was cleaned and 40kg of predominantly plastic waste removed. Educational talks about marine debris effects on the nature were held at public events and school visits.

Project delivery partners include Turtlecare Volunteers Queensland, Lady Musgrave Island Study, Moore Park Beach Turtle Monitoring Group and Lower Mary River Land and Catchment Care Group.

This project is supported by the Burnett Mary Regional Group, through funding from the Australian Government's National Landcare Program.



PADDOCK TO REEF PROGRAM



Photo: Marine and water quality monitoring team

FUNDED BY:

Queensland Government through Natural Resource Investment Program

The Paddock to Reef Integrated Monitoring, Modelling and Reporting program (the program) evaluates and reports progress towards the Reef 2050 Water Quality Improvement Plan targets through the Reef water quality report cards.

The program is a collaboration between approximately 20 organisations and more than 100 individuals. Included in this group of collaborators are government agencies, industry bodies, landholders, and natural resource management groups.

The program aligns with the Reef 2050 Water Quality Improvement Plan (Reef 2050 WQIP) framework to evaluate management practice adoption, management practice effectiveness for water quality benefits and economic outcomes, catchment condition, pollutant runoff and marine condition. Reef 2050 WQIP progress is reported by the program through the annual Reef Water Quality Report Card (The Report Card).

The Report Card covers paddock, sub-catchment, catchment, regional and Great Barrier Reef-wide scale. In the Burnett Mary region, there are 19 water quality monitoring sites that each collect water samples for analysis of sediment and nutrient loads and/or pesticide concentrations. There are also seven wetland monitoring sites and five seagrass monitoring sites.

Members of Gidarjil Development Corporation undertake inshore coral monitoring at 15 different sites and water quality sampling.

Notable achievements from the year for the program include:

- 110 attendees at the 2021 Regional Integrated Science Forum;
- 45 nutrient and pesticide surveys complete in five different sub-catchments;
- Gidarjil Coral Monitoring in the Burnett Mary video.

BMRG collaborates with multiple industry and research organisations to support and promote land management practices that result in improved water quality flowing into the Great Barrier Reef lagoon.

NATURAL RESOURCE INVESTMENT PROGRAM REEF WATER QUALITY



Photo: On ground community workshop

FUNDED BY:

Queensland Government through Natural Resource Investment Program

The Burnett Mary Catchments are two of the top contributors for fine sediment entering the adjoining marine ecosystems. Natural Resources Investment Program Reef Water Quality program (NRIP) funded by the Department of Natural Resources Mining and Engineering (DNRME) has four major outcomes targeted towards reducing sediment entering the Great Barrier Reef and the Great Sandy Strait Ramsar Site.

1. Streambank remediation
2. Wetland rehabilitation
3. Grazing land practice change
4. Riparian zone protection

BMRG has partnered with MRCCC, BCCA and Noosa District Landcare to deliver onground works throughout the region. This project has run a number of successful community events as part of its commitments in communications and there have been five workshops targeting landholders in the past 12 months. An approximate total of 80 people have attended these workshops, which covered a number of topics including soil health, grazing land management, and information on pastures.

An exciting update in the restoration of the Mary River was the completion of the streambank

remediation site at Beatie Creek. This achievement sees the prevention of dangerous sediment loads on this site eroding into the river and being carried down to the Great Barrier Reef. This tributary was the first in the Mary River to be repaired, and many more will follow over the duration of the NRIP project, leading to a cleaner and healthier river system.

Another highlight for the project was having funding representatives from DRNME join the BMRG team on a site tour visiting two key sites in Kenilworth and Susan River. The field day provided an excellent opportunity for the liaison officers and technical staff to see the on-ground works and to have the opportunity to ask additional questions about the streambank remediation methodology.



Photo: Streambank restoration

SHOREBIRDS MONITORING PROGRAM



Photo: Eastern Curlew

FUNDED BY: Gladstone Port Corporation

Burnett Mary Regional Group with Birdlife Australia, Queensland Wadder Study Group has been collaborating with Gladstone Port Corporation in shorebird monitoring for over a decade, since 2009.

The Bundaberg Port site is of great importance, supporting migratory birds and populations or resident and nesting wading species despite being a modified environment. Far Eastern Curlew, Bar-tailed Godwit, Sharp-tailed Sandpiper are just a few examples of species recorded during the monitoring events.

Monthly counts contribute to Queensland and National shorebird datasets to enhance management and outcomes for migratory and resident species. The project provides environment data and expertise to Gladstone Port Corporation for their environmental management system.

To continue and strengthen the established working relationship an innovative floating shorebird roost will be deployed to one of the Bundaberg Port's sites to provide additional habitat for shorebirds to rest closer to their foraging grounds. This initiative is a part of a five year long program.



Photo: Nev Capel, Shorebird Ambassador – shorebird monitoring

OUT AND ABOUT



📷 Field trip for GRASS



📷 Gin Gin Landcare Event

📷 Beach clean up day at Bangara



📷 Hon Keith Pitt MP with the region's turtle volunteers



📷 Noosa Festival of Water



📷 MP David Little Proud, BMRG CEO Sheila Charlesworth, ANU Professor Andrew Macintosh launch of Carbon Biodiversity Pilot



📷 BMRG, CQU and Gidarjil Development Corporation at Discovery Coast Project Analysis



📷 Turtle talk at Elliott Heads school



📷 Reef Trust Funding Announcement – Minister Sussan Ley



CMERC Opening



BMRG staff drone training



Brad Wedlock from MRCCC presents at Community Engagement Forum



AgTech Hub Opening with BMRG, Greensills Farming, CQU and AgPro Technology



BMRG stall at 1770 Festival 2020



Matt Pfeiffer (CMERC) and Des Mann (LESS) Deploying Sensors



Robert Speed from GBRS with Sheila Charlesworth



NAIDOC family fun day

GIS DATA MANAGEMENT AND DRONE SUPPORT

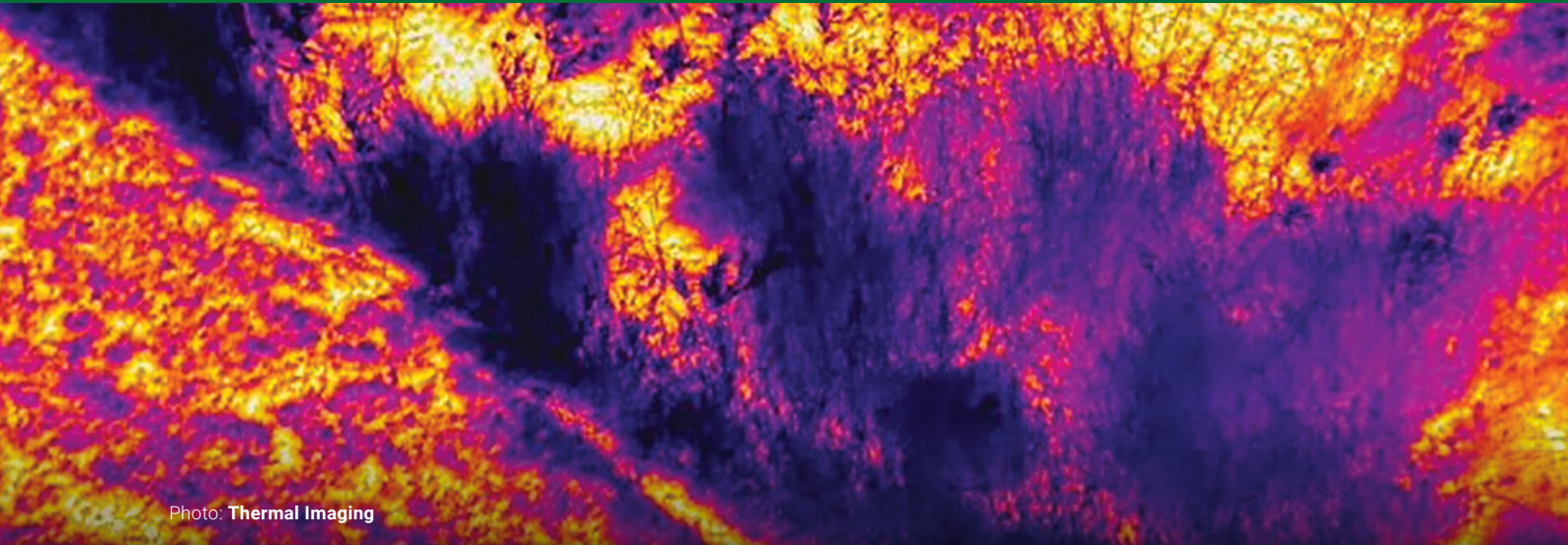


Photo: Thermal Imaging

FUNDED BY:

All projects

Drone services, GIS functionality and information management activities are increasingly central to natural resource management (NRM) project planning, monitoring, and reporting. Considering that BMRG has continued to invest in drone and GIS technology with a suite of technically advanced sensors and personnel through funding from the Natural Resources Investment Program.

Our current fleet of the Phantom 4 Pro, Matrice 600 Pro, Matrice 300 RTK, Mavic 2 Pro drones for field staff have been joined by new 5 DJI mavic mini light weight drones. DJI Mavic Mini Drones are compact and convenient to travel with. This will support our project officers to capture accurate and quality imagery of our beautiful landscapes and monitor the progress of project

works. With the expansion of BMRG's drone program has come the need to better manage risk and take opportunities to fly under challenging conditions.

One of the highlights for this year is the work undertaken for the Discovery Coast project on three different causeways located on Rods Peninsula. The team conducted a data collection mission with Matrice 600 Drone with attached LiDAR sensors and created the 3D digital surface model (DSM) for the Central Queensland University researchers.

Another highlight for this year was the novel application of thermal Drone technology to identify Fox Dens as a part nest to the ocean project. In May 2021, the first flight itself team successfully identified the location of the fox den with ~5°C temperature difference.



Photo: Drone operation



Photo: Drone

ENHANCED EXTENSION AND COORDINATION



Photo: Community workshop

FUNDED BY:

Queensland Government through Reef Water Quality Program

The Enhanced Extension Coordination (EEC) project is funded by the Queensland Government Reef Water Quality program. It is being delivered throughout the Reef catchments in the Burnett Mary region by the Department of Agriculture and Fisheries (DAF) and Natural Resource Management (NRM) groups.

The EEC project addresses the Great Barrier Reef (GBR) Water Science Taskforce recommendation that the Queensland Government invest in more targeted and coordinated extension to support practice change that will result in improved water quality outcomes for the GBR.

Over the past 12 months the BMRG Regional Extension Coordinator has:

- Updated the Burnett Mary Regional Extension Services Strategy (BMRESS) in consultation with extension staff and industry service providers;
- Facilitated the Cross Industry Networking (CIN) forum to enhance opportunities for collaboration and professional development of extension practitioners;
- Developed the Burnett Mary Communication and Engagement Plan, Putting Producers First;
- Collaborated with Alluvium Consulting to conduct and compile the Situation and Gap Analysis for extension the Burnett Mary.

Spotlight on the Situation and Gap Analysis

The Situation and Gap Analysis (the analysis) for the Burnett Mary was designed to identify current extension capability and capacity, training requirements, and barriers or enablers to project implementation and success across the region.

Through interviews and surveys with extension officers in the Burnett Mary, Alluvium Consulting was able to provide a strategic overview of on-ground delivery of extension services in line with water quality priorities.

Barriers and also solutions to achieving practice change with primary producers were identified and these will support increased practice adoption, improving water quality and productivity across all agricultural industries in the region.

By comparing 'grass-roots' performance against the program's expectations, the analysis was able to highlight strategies, capacity building, processes and technologies that will improve project performance into the future.

GRAZING RESILIENCE AND SUSTAINABLE SOLUTIONS PROGRAM (GRASS)



Photo: **Sunset over Thooruna, Mundubbera QLD**

FUNDED BY:

Queensland Government through Reef Water Quality Program

Grazing Resilience and Sustainable Solutions (GRASS) is a program that aims to assist landholders working in a reef regulated environment. GRASS is funded by the Queensland Government Reef Water Quality program.

The program is delivered through Burnett Mary Regional Group, the Department of Agriculture and Fisheries (DAF), Fitzroy Basin Association and NQ Dry Tropics.

GRASS focuses on poor land condition areas of high erosion risk and works with landholders to improve these areas through land condition assessments and the Action Plan for Land Management development. Landholders are

supported to improve areas of poor land condition through opportunities for incentive funding opportunities.

Over the past 12 months BMRG GRASS Extension Officers have been working with landholders to complete 137 Land Condition Assessments across 31,229 hectares of land to help graziers develop Action Plans for Land Management.

These plans assist landholders to analyse their current land condition and develop plans to improve areas of their property in poor condition. Graziers are also provided resources and information on the requirements of the grazing minimum standards for the Reef Protection Regulations, and how they can comply.



Photo: **BMRG property visit in the Burnett Mary**



Photo: **Friends in the field at Brymwar, Gin Gin**

RESILIENT AND PRODUCTIVE FARMERS



Photo: On ground community workshop

FUNDED BY:

Australian Government through National Landcare Regional Land Partnerships Program

The Resilient and Productive Farmers across the Burnett Mary is an extension, communication and engagement based project working closely with Landcare, catchment and producer groups and other organisations to support graziers and farmers implementing good long-term land management practices.

2020-21 marked the halfway point of this 5 year National Landcare Program project. Achievements during the year included the delivery of 12 stakeholder engagement events, 5 properties soil tested, 10 land managers receiving one-on-one support, 5 property management plans developed, over 5 communication materials published, 2 project stakeholder coordination meetings and 15 graziers reported with self-funded on-ground changes to land management improving groundcover, pasture health and reducing the risk of hillslope erosion.

The 2020-21 achievements contributed to the project's overall successes to date of 31 events with over 400 land managers having attended at least one event and a combined event attendance of over 800 participants (some counted several times due to multiple event attendance). 20 properties have been soil tested; 12 grazing property management plans developed; 1 grazing extension, communication and engagement plan developed and over 17 communication flyers together with Facebook posts and other promotions support.

The Resilient and Productive Farmers across the Burnett Mary region project has also successfully engaged and supported land managers during exceptionally dry years. Many land managers have attended multiple events and activities and embraced the opportunities of several presenters from outside the region bringing a range of different ideas and approaches to land management to local audiences.

This project has positive economic benefits to the wider community through holding events in small rural towns attracting land managers with a much needed flow-on benefit for the local hospitality industry and other businesses.



Photo: On ground community workshop

REGIONAL AGRICULTURE LANDCARE FACILITATOR (RALF) PROJECT



Photo: RALF workshop

FUNDED BY:

Regional Land Partnerships Program as part of the National Landcare Program

BMRG's Regional Agriculture Landcare Facilitator (RALF) project supports sustainable agricultural practices in the Burnett Mary region.

RALF representatives focus on key factors that impact the Burnett Mary agricultural community productivity, profitability, mental health and natural resource management. These include operational planning, resilience to effectively deal with variables such as climate and markets, an aging rural population, soil health and pasture management education, response to drought and other climatic events (fire), changes in legislative and governmental policy, COVID-19 and other societal hurdles.

RALF highlights during 20/21 included but are not limited to:

- Natural Sequence Farming Field Days, facilitated by the Central Burnett Landcare Group. Attended by 60 landholders - raising awareness of landscape hydration.
- Grazing Clinic, funded by the Resilient and Productive Farmers across the Burnett Mary Region Project. Attended by 47 landholders - to increase capacity to manage land to its capability.
- Soil Solutions Workshop, held in conjunction with the South Burnett Grazing Network and funded by the Resilient and Productive Farmers across the Burnett Mary Region Project. Attended by 41 landholders - to increase landholder's knowledge of soil health.

- Promotion of traditional management techniques and partnerships facilitation. The Burnett Mary RALF developed links with the Bunya Mountain Murri Rangers and was able to facilitate a meeting between the Rangers, Queensland Parks and Wildlife Service and the South East Burnett Landcare Group to discuss ongoing management of Nangu National Park and incorporate traditional management techniques.
- Facilitating two grant writing workshops, aimed to upskill agriculture groups, Landcare and the community in grant writing for improving land management practices.

The RALF utilised a range of platforms to keep Landcare, producer and catchment groups updated with funding opportunities, workshops and events, date claimers, news, policy updates and the latest in sustainable agriculture in the Burnett Mary region in 20/21.

The RALF supported the exploration and adoption of sustainable agricultural practices, connected peers with programs of support and information, was a conduit to connect agricultural communities with services important to building/maintaining resilience, connected with industry, community, traditional owners and government to support sustainable agriculture or Landcare, and thoroughly enjoyed being part of a national network of specialists who support landholders to improve their land management practices.

BUNYA MOUNTAINS MURRI RANGER PROGRAM



Photo: Bunya Peoples Aboriginal Corporation Team Photo

FUNDED BY:

National Indigenous Australians Agency

The Bunya Mountain Murri Rangers (BMMR) work in Russell Park (a state conservation area) and Bunya Mountains National Park. The work is undertaken in partnership with the Bunya Peoples Aboriginal Corporation, the Burnett Mary Regional group, Queensland Parks and Wildlife Service, Queensland Herbarium, and the Condamine Alliance.

The Bunya Mountains are of cultural and environmental significance and support more than 30 rare and threatened species. BMMR work includes surveying and recording flora and fauna; heritage site management; implementing appropriate fire regimes; maintaining tracks and visitor areas and managing weeds and feral animals.

BMMR have completed training (refreshers or license requirements) including fire management and conservation and land management (CALM).



Photo: Weed Vine Management

The BMMR have also been working with Silver Linings Foundation based at Ficks Crossing near Murgon. Silver Linings Foundation Principal, Jo Campbell engaged BPAC & DMMR to develop a junior ranger program for the young Cherbourg residents attending the Silver Linings school, moving the school focus from rodeo to caring for country.

Within this engagement, BMMR have been working with the Cherbourg Youth Justice Program, teaching them about culture, looking after country and strengthening song lines. BMMR attend events with the youth out bush educating them about different types of country and cultural fire/cool burning as well as traditional tool making and artifact painting.

The BMMR transitioned out of BMRG into the Bunya People Aboriginal Corporation on June 30th. BMGR will continue to support and collaborate with the rangers through BPAC.



Photo: Rangers conducting a cultural burn

SAVING SOILS IN THE BURNETT MARY



Photo: On Ground Community workshop

FUNDED BY:

Australian Government National Landcare Program

The Smart Farms Small Grants (SFSG) program aims to support the adoption of best practices to improve the management and condition of our natural resources while increasing on-farm productivity.

BMRG's Saving Soils in the Burnett Mary project is funded through SFSG and has been designed to improve soil conservation outcomes in the Burnett Mary, with a focus on the inland Burnett. The project has focused on increasing landholders' capacity to approach and remediate gully erosion issues.

The project has supported a group of landholders through providing:

- Four field days on funded demonstration sites;
- Delivery of case studies;
- Ten tailored erosion remediation guides;

- Five technical videos in collaboration with Fitzroy Basin Association providing advice on soil conservation issues, particularly gully erosion.

The project will conclude in September 2021 and has achieved a great impact in the inland Burnett with graziers.



Photo: On Ground Community workshop



Photo: On Ground Community workshop

IMPROVING LAND MANAGEMENT AND WATER QUALITY IN THE BURNETT CATCHMENT



Photo: Major Streambank Erosion

FUNDED BY:

Australian Government through Reef Trust

The Burnett River Water Quality Project (BRWQ) aims to improve water quality in the Burnett Mary region to minimise the impact of degraded waterways on endangered species, including the brush-tailed wallaby, greater glider, and snapping turtle.

Through BRWQ, by 2023, land management practices along the Burnett will have improved to ensure protection of its waterways, biodiversity, and ecosystems and 16,000 tonnes of fine sediment will be prevented from escaping to the Great Barrier Reef.

This project begins in the upper Burnett River area, which is the seventh most polluting reef catchment for fine sediments. Large scale restoration of riparian areas will reduce streambank erosion and fine sediment loads.

The project works closely with Traditional Owners (TO) and landholders in project design and delivery, including revegetation, fencing, removal of feral animals and Weeds of National Significance (WONS) and monitoring services including telemetry.

Improved stock management through fencing and off-stream watering points will be adopted and weed and pest management plans will be implemented to assist the TOs and landholders to adopt best practice management.

Stakeholder engagement and workshops during co-design phase have informed the selection of project sites, on-ground actions and monitoring strategy, and provide an understanding of the geomorphology and hydrology of priority erosion areas of the Burnett Catchment.

Formal approvals and permits for earthworks have been obtained for a number of high priority sites on Goondicum Station, the location of the upper Burnett. The revitalisation and revegetation of the stream banks and beds can now commence.

Extensive baseline surveys have been completed at the erosion site including; water quality, flora, fauna, weeds, LiDAR, BioCAT, LCAT and feral pig.



Photo: Contractors and Engineers discussing site design

DISCOVERY COAST: INTEGRATED HABITAT RESTORATION



Photo: Rodds Peninsula by drone

FUNDED BY:

Australian Government through Reef Trust

The Integrated Habitat Restoration for the Discovery Coast project, supported by Burnett Mary Regional Group (BMRG) is funded by the Australian Government.

The project aligns directly with three key regional land partnership investment priorities:

- Improving the trajectory of threatened species;
- Improving condition of threatened ecological communities;



Photo: Discovery Coast Consortium

- Reducing threats to the outstanding universal values of World Heritage properties.

BMRG works in collaboration with best-placed organisations as the Discovery Coast Consortium to deliver the project. The consortium is made up of BMRG, CQUniversity, LESS Industries, Gidarjil Development Corporation, and Alluvium Consulting.

The consortium has addressed objectives at the Rodd's Harbour Fish Habitat Area by removing three earthen causeways that were preventing tidal flow and impacting saltmarsh health, fish migration, and natural ecosystem continuum.

Water quality, flora and fauna, sediment, and weed and pest surveys were conducted prior to earthworks, and will be undertaken following earthworks, until June 2023.



Photo: BMRG and Alluvium Consulting inspecting causeway removal at Rodd's Harbour

Works are also underway to stabilise 0.6km of crumbling streambank at the Kolan River. This site has contributed 52,500 m³ sediment lost to the Great Barrier Reef World Heritage Area since 1956.

The Discovery Coast project will also protect nesting marine turtle sites by installing nesting cages. Sites will be monitored continuously over the life of the project.

MARY RIVER RECOVERY



Photo: Conondale site prior to works commencing

FUNDED BY:

Great Barrier Reef Foundation

The Great Barrier Reef Foundation Mary Consortium Management Committee is a collaboration of three key organisations:

- Burnett Mary Regional Group for NRM (BMRG)
- Mary River Catchment Coordinating Committee (MRCCC)
- Alluvium Consulting

Through the consortium, Great Barrier Reef Foundation (GBRF) funding will be strategically invested into on-ground water quality improvements in the Mary catchment. This investment is planned over four years from July 2020 to June 2024.

The Mary catchment is in the top five of 35 catchments contributing fine sediment into Reef receiving waters. Around 70% of fine sediment is derived from streambank erosion in the Mary catchment. Grazing is identified as the next most significant source.

The consortium objective is to achieve an enduring reduction of 26 kilo tonnes of end-of-catchment pollutant loads for fine sediment in the Mary Catchment. The Investment Strategy for the Mary River (2020) was developed to guide the project prioritisation. A combination of works including large-scale restoration of erosion riverine areas through to lower cost revegetation



Photo: During Conondale site works

in river reaches will be employed to stabilise priority streambanks. The program also aims to improve land management practices and stewardship.

The first on-ground project was completed in August 2020, remediating a priority erosion site on the Mary River at Conondale. The site identified as a priority in the Mary River Investment Strategy, involved earthworks to batter the site, pile fields and revegetation. This site was expedited to undertake earthworks during favourable weather conditions and to avoid the turtle nesting season.

The erosion remediation at the Conondale site has resulted in a 2,154 tonnes per year reduction in fine sediment.

BURNETT MARY COMMUNITY ACTION PLAN



Photo: Great Barrier Reef coral

FUNDED BY:

Great Barrier Reef Foundation

The Burnett Mary Community Action Plan (CAP) aims to deliver actions to enhance, protect, and accelerate positive impacts to the Great Barrier Reef.

The CAP offers guidance for motivated community members and groups to collaborate and work on a common set of actions to better our region and environment for future generations.

With funding from the Australian Government's Reef Trust and the Great Barrier Reef Foundation, leading organisations have collaborated with their communities to present a set of key regional focus areas.

Through active collaboration with local community, youth, and Traditional Owner groups, Burnett Mary Regional Group has harnessed and extended existing experience and knowledge to contribute to the regional focus areas. In 2020, three workshops were held to confirm assets, identify threats, and create roadmaps for implementation.

The Burnett Mary Community Action Plan has four key assets, 23 threats, and seven roadmaps.

Assets

- Marine turtle habitat
- Fish habitat including seagrass, mangrove and reef
- Coral health
- Traditional Owner practices

Threats

- Lighting
- Foxes and dogs
- Climate change
- Marine debris
- 4WD vehicles
- Boats and boat strike
- Invasive species
- Pollution
- Lack of awareness
- Lack of engagement
- Unwillingness to pay for Traditional Owner knowledge

Roadmaps

- Provide action against threats
- Encourage community action
- Achieve meaningful outcomes
- Protect the Great Barrier Reef

BURNETT RIVER RIPARIAN REHABILITATION



Photo: Native revegetation site at Rubyanna completed streambank rehabilitation

FUNDED BY:

Queensland Reconstruction Authority (QRA)

MILESTONE REACHED

3.69 hectares of riparian vegetation zone restored
2.4 km of riverbank treated of woody weeds

Burnett Mary Regional Group (BMRG) successfully acquired funding from the QRA Disaster Resilience Fund for the restoration of riparian areas in the Burnett River to promote resilience of natural systems. A suitable site was identified on Bundaberg Sugar Limited owned and operated farmland in the Rubyanna area of the Burnett.

Restorative planting of riparian vegetation zone was undertaken on 3.69 ha to stabilize the riverbank, reduce ongoing erosion and minimize loss of land during future flood events. Priority was given to the use of endemic native species.

The second component of this project was the treatment of woody weeds along 2.4 km of riverbank. Castor oil plant (*Ricinus communis*) was the main targeted weed.

A potential loss of highly arable land, a damage to irrigation system and a destruction of riparian zone, which plays a critical role in supporting biota and therefore biodiversity along the Burnett River, were the main drivers behind this project. The property owner – Bundaberg Sugar Limited – is one of the main employers in the region who supports local community by providing job opportunities.

Revegetating selected areas mitigated a risk to property damage and prevented a loss of ecological benefits of riparian zones. In addition, improvement on the farming land will support habitat for native flora and fauna.

The cooperation on this project opened new opportunities for a partnership and future collaborations on similar projects in the region, which could improve resilience to natural disasters.

The following partners were involved in the project:

- Alluvium Consulting – engineering advise / design
- Red Ash Consulting – provision of revegetation plan
- Gidarjil Development Corporation – implementation of revegetation plan and initial maintenance
- Bundaberg Sugar Ltd. – use of land, assistance with implementation of revegetation plan and ongoing maintenance.



Photo: Gidarjil Land and Sea Ranger assisting with revegetation

THREATENED SPECIES ASSESSMENT AND RECOVERY IN BURNT COASTAL WALLUM WETLANDS



Photo: Griffith BMRG Butchella and MRCC in field at K'Gari

FUNDED BY:

Griffith University under the Wallum Fire Project

The Wallum Fire Project – K'gari objective is to understand the impact of the 2019/2020 K'gari fires on aquatic animals in coastal wallum wetlands. The project is funded through Griffith University under the Commonwealth Department of Agriculture, Water and the Environment – Wildlife and Habitat Bushfire Recovery program.

Acid wetlands such as Wallum on K'gari are a distinctive aquatic environment characterised by acidic, nutrient deficient and tannin-stained waters, with sandy substrates and often dense submerged / emergent vegetation.

These wetlands support a highly distinctive collection of acid-tolerant fishes, crayfish and frogs - many of which are listed as threatened under National and State legislation.

Many of these acid wetlands, and the unique biodiversity they support, are well protected and managed. Others are threatened by habitat destruction and declining water quality associated with coastal land clearing, land-use intensification, and urban expansion, as well as by introduced fish and other invasive animals and plants. Recent fires likely have exacerbated these threats; however, their consequences are unknown.

BMRG partnered with Griffith University, MRCC and Butchulla Land and Sea Rangers to complete

Wallum wetland surveys post the 2019 and 2020 K'gari fires. The surveys:

- comprehensively survey threatened fish, frogs and crayfish in coastal wallum wetlands to document distribution, abundance, and threats
- develop methods for ongoing monitoring
- identify and prioritise critical habitat and rehabilitation and recommend actions for recovery.

BMRG staff and Butchulla Land and Sea Rangers spent a week in the field with Griffith University learning water and fish sampling techniques.



Photo: Butchell, Griffith and BMRG Field Day in Harvey Bay

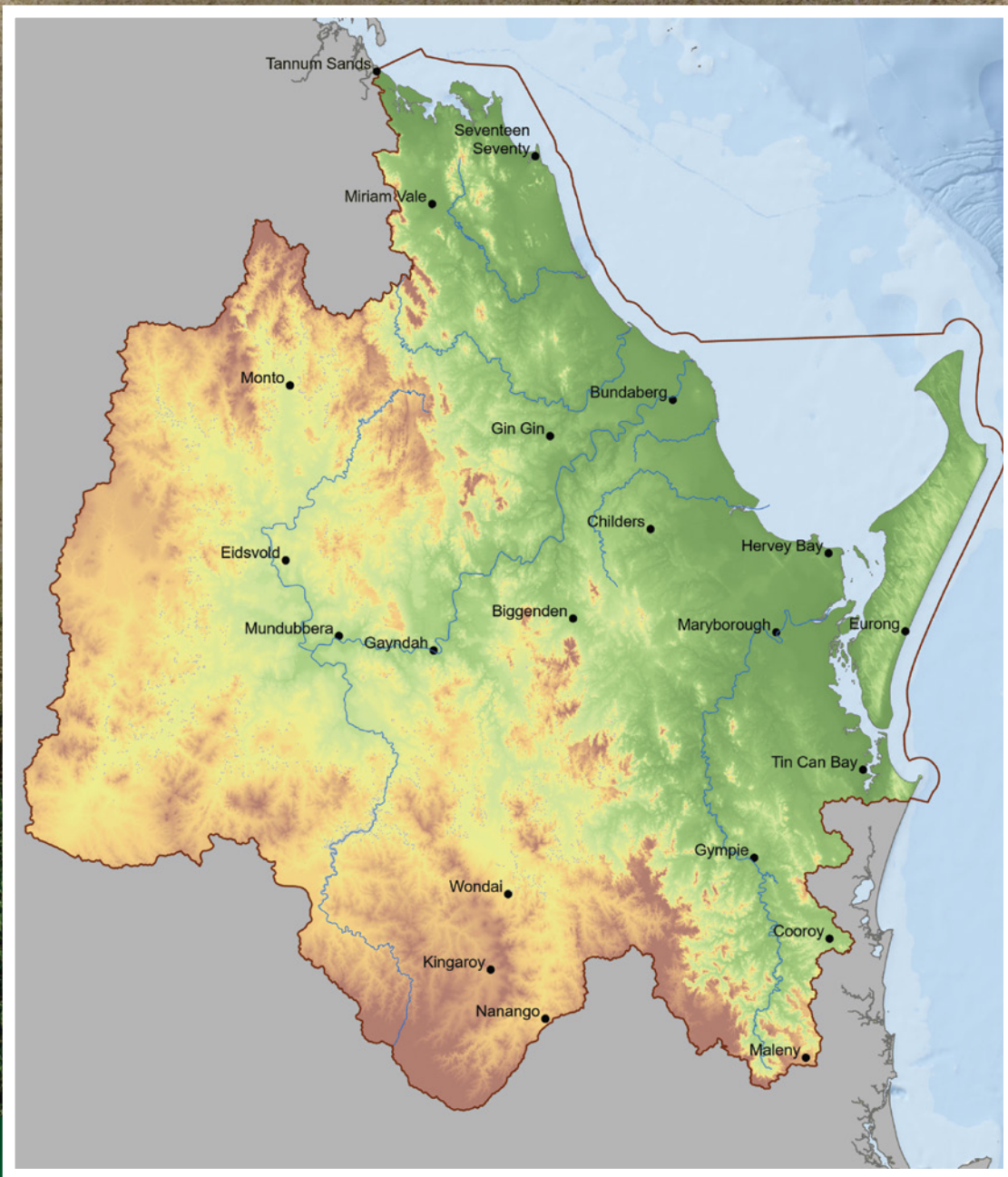
BMRG BOARD OF DIRECTORS



Photo: Tony Ricciardi; Dale Holliss; Elke Watson; Brent McLellan and Nadia Campbell



As we continue to deliver on our vision, 'To protect and enhance the agricultural and natural environment of the Burnett Mary region for future generations' we thank our members, Federal, State and Local Government, Traditional Owners and the Burnett Mary community for your continued support.



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