

# THE OPPORTUNITY TO BUILD RESILIENT LANDSCAPES & OPTIMISTIC COMMUNITIES THROUGH EFFECTIVE NATURAL RESOURCE MANAGEMENT (NRM)

## BUSINESS CASE TO SUPPORT FEDERAL GOVERNMENT INVESTMENT IN THE QUEENSLAND REGIONAL NRM BODIES



# REGIONAL NRM BODIES IN QLD OFFER CERTAINTY IN ENVIRONMENTAL OUTCOMES

The health of Queensland's natural resources provide the foundation for Queensland's prosperity and liveability and are critical for the continued success of our agricultural, tourism and fisheries sectors. Our natural assets provide vital ecosystem services that deliver free fresh clean drinking water, healthy soils, regulation of floods and droughts and recreational and cultural benefits. Our natural assets and the lifestyle they support is a key attractor for skilled inter-state and international migrants and growing our economy. However, that there is a continuing and significant threat to the natural resource assets of Queensland.

Approximately 46% of natural assets in Queensland are under threat from a range of factors, including water extraction, droughts and climate variability, habitat fragmentation, natural disasters, land use pressures and invasive species.

There are 12 regional Natural Resource Management (NRM) bodies in Queensland who work with landholders, traditional owners, the community and local governments to help protect and enhance the services that natural assets provide the community.



The regional NRM bodies in QLD are seeking an investment of \$120 million dollars over 5 years to deliver on Federal government priorities and to continue the enhancement and protection of natural resource assets.

It is vital that the Federal government provide further investment to enable regional NRM bodies to create more jobs, build skills and capacity, which enables them to continue to tackle the threats to the health and resilience of Queensland's natural assets and our ongoing prosperity.

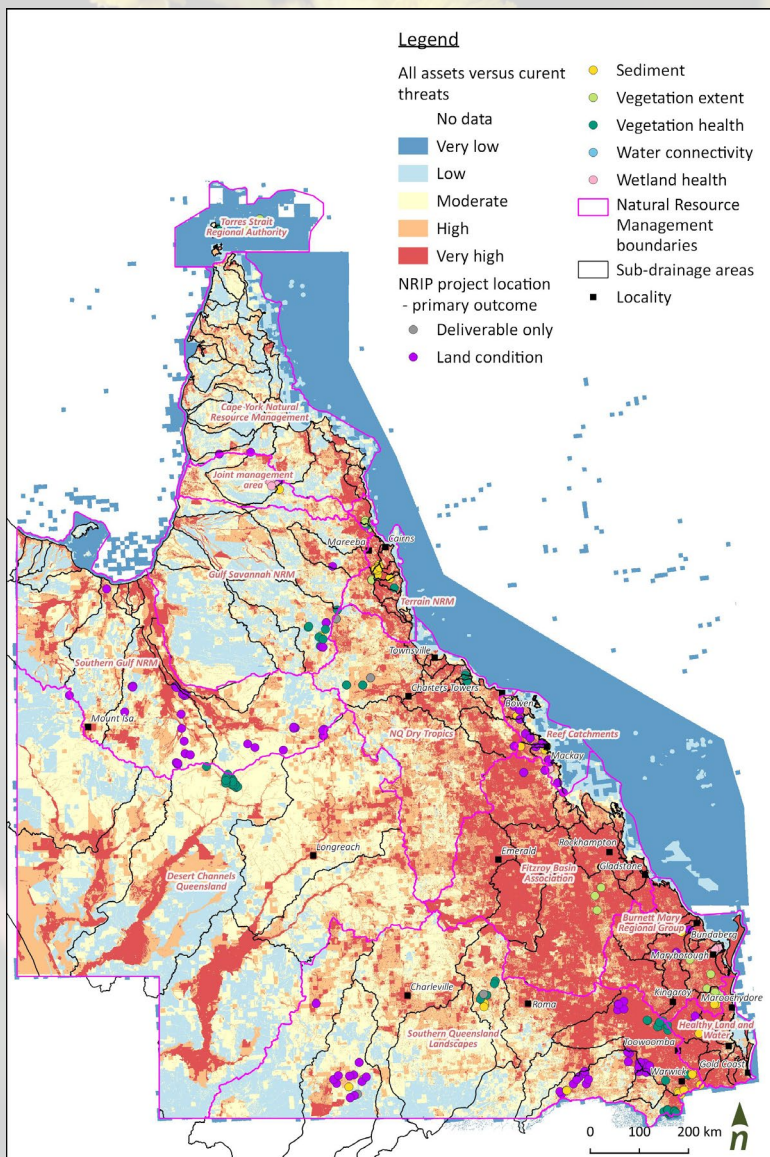
# NATURAL ASSETS ARE UNDER THREAT IN QUEENSLAND

Understanding threats to natural assets helps to identify areas for future investment in NRM. A landscape-scale prioritisation approach was developed<sup>1</sup> to identify, collate and synthesise statewide spatial datasets on natural resource assets, and current and future threatening processes.

The resulting product was a series of heat maps that identify priority areas where highly valued assets intersect with varying levels of threat levels.

There are 8 common threats in Queensland across the NRM regions:

- Droughts and climate variability
- Water extraction
- Urban land use pressures
- Habitat fragmentation
- Natural disasters
- Agricultural land use pressures
- Mining land use pressures
- Invasive species



## Key natural resource assets under moderate, high or very high threat



Soil and agricultural land  
33% of QLD under threat  
50% will be facing threat in future



Native vegetation  
84% of QLD under threat  
89% will be facing threat in future



Protected Areas  
13% of asset under threat  
14% will be facing threats in future



Surface waterways and wetlands  
44% of QLD water under threat  
48% will be facing threats in future



Threatened species  
70% of QLD under threat  
74% will be facing threats in future

Natural assets are at high risk across Queensland (EcoFutures, 2021)<sup>1</sup>

# A SHARED PURPOSE TO ENHANCE AUSTRALIA'S NATURAL AND AGRICULTURAL RESOURCES

The Regional NRM bodies in QLD and DAWE have a shared purpose to enhance Australia's agriculture, environment, and water resources through partnerships. There is strong overlap between the DAWE strategic objectives and the priorities of Regional NRM bodies in QLD (refer to figure below). This overlap signals an opportunity for future investment to deliver on the shared objectives to confidently deliver multiple benefits for regional communities, economies and environmental assets.

Projects and programs delivered by Regional NRM bodies in QLD also have strong alignment with the following DAWE strategies priorities:

- Foster collaboration in research and development to drive update of innovative practices in the agricultural sector.
- Support economic recovery post-COVID-19 across industry
- Improve the status of threatened species and ecosystems

Projects and programs delivered by NRM bodies in Queensland also support the following priorities:

- Deliver policies and programs to support profitable and resilient agribusiness.
- Protect, conserve, and enhance the value of Commonwealth marine and terrestrial parks and gardens for the use and wellbeing of all Australians
- Deliver substantial actions to build climate adaptation and resilience in the economy, community, and environment.

Examples of how the programs delivered by Regional NRM bodies in QLD align with current DAWE objectives are provided on the subsequent pages.

Agriculture - assist industry to facilitate the growth of the agricultural sector.

Environment and heritage - improve stewardship and sustainable management of Australia's environment and unique heritage.

## COMMON OBJECTIVES BETWEEN NRM BODIES IN QLD AND DAWE

Being future ready - Integrate new capabilities and technology enabled delivery to meeting the demands of an increasingly connected, changing and complex world.

Water resources - Improve the sustainable management of Australia's water resources for agriculture, the environment and communities.

# SUCCESS OF REGIONAL NRM BODIES IN QUEENSLAND

There are five key success factors that have led to regional NRM bodies in Queensland achieving measurable environmental, social and economic outcomes through the programs they deliver.

## Regional employment opportunities and agricultural support

Funding for NRM programs through Regional NRM bodies has led to increased employment opportunities for local contractors, funding for landholders, and indirect employment for locals through support and supply chains. Regional NRM bodies directly contribute to 268 regional jobs and through their projects contribute to a further 367 jobs created in regional communities. NRM bodies form an intrinsic part of agricultural support networks resulting in a more profitable and productive agricultural sector.

## Positive impact on natural resource asset conditions

Each of the regional NRM bodies have undertaken management tasks which have addressed environmental threats. Their projects have achieved measurable change in grazing land condition, vegetation condition and sediment reduction as well as improved land practices and reduced environmental threats at a site scale. This improvement will increase in scale as existing projects mature and new projects are undertaken.

## Collaboration, engagement, and capacity building

Funding has enabled the regional NRM bodies to build and foster increased collaboration and engagement with local councils, landholders and contractors. This engagement has led to increased trust, a shift in landholder perception of NRM and improved land management practices. The relationships formed during projects have created a foundation which has catalysed future work. This is a critical foundational NRM activity that is often undervalued in funding programs yet is always the first step to achieving NRM program outcomes.

## Efficient and effective, with high delivery support ratios

Regional NRM bodies operate with a high delivery to support ratio (91%) which directly translates to outcomes in the community. This is much more efficient than the industry benchmark (80%). The high delivery to support ratios means that NRM bodies are very effective in leveraging funding. Every \$1 of funding received by the NRM bodies is leveraged to produce \$4.2 of additional investment which is an extremely favourable cost benefit ratio.

## Flexibility in program implementation and delivery

Flexibility in the implementation and delivery processes in NRM programs has led to enhanced stakeholder relationships and ultimately local outcomes. Consistent funding provides the confidence for NRM bodies to retain experienced staff which build internal delivery capacity. The effectiveness of projects is similarly enhanced as staff can adjust a delivery model to suit the specifics of the landholder and location.

# VALUE OF REGIONAL NRM BODIES IN QLD

Regional NRM bodies bring unique benefits to Queensland. The NRM model is an efficient operational delivery model with a greater proportion of jobs dedicated to delivery (91.4%) as opposed to support services for that delivery.

For every \$1 of Government funding, an additional \$4.2 of cash and in-kind is leveraged.

## SUMMARY OF ECONOMIC CONTRIBUTIONS OF NRM BODIES



**\$71.9 MILLION**

ANNUALLY INVESTED FROM ALL SOURCES WHICH COLLECTIVELY GENERATES

**\$183 MILLION**

ANNUAL CONTRIBUTION TO THE QLD ECONOMY

+

**\$92 MILLION**

VALUE ADD



**268 FTE**

DIRECT EMPLOYMENT

+



**367 FTE**

INDIRECT EMPLOYMENT



**2.4**

POSITIVE MULTIPLIER EFFECT

### BENEFIT COST RATIOS (BCR) ACHIEVED BY PROJECTS DELIVERED BY NRM BODIES IN QLD

A BCR greater than 1.0 represents an intervention expected to deliver a positive return on investment. For every dollar invested in NRM bodies the following is returned to society:

\$3.0	SOIL AMELIORATION	\$3.1 - \$27.1	PREDATOR, PEST CONTROL
\$5.8	REDUCE SOIL ACIDITY	\$1.62 - \$2.62	IMPROVE COASTAL HABITATS
\$2.3 - \$24.6	MANAGE WEEDS	\$1.9 - \$3.07	IMPROVE WETLAND HABITATS
\$1.0 - \$1.5	REVEGETATE KEY SPECIES	\$5.6	AFFORESTATION, HABITAT CREATION
\$6.4	ENVIRONMENTAL FLOW PROVISIONS		

#### BUSINESS CASE

2. Ernst and Young (EY) 2021, *Economic contribution, unique benefits and skills assessment of Regional NRM bodies*, report prepared by EY for NRMRO, Toowoomba, QLD.

# ECONOMIC, SOCIAL AND ENVIRONMENTAL BENEFITS OF REGIONAL NRM BODIES IN QLD

NRM funding and activities generate a number of economic, social and environmental beneficial outcomes over the short, medium and long term which are synthesised below.

## Economic benefits

*Increased employment opportunities for local contractors and traditional owners.*

*Funding for landholders.*

**NRM projects lead to increased economic resilience**



## Social benefits

*Increased community partnerships and networks*

*Ability to rapidly mobilise technical expertise to support community and landholders.*

**NRM bodies build collaboration with governments, landholders and communities.**



## Environmental benefits

- Project directly address environmental threats.
- Increased native vegetation.
- Improvements in grazing land condition.
- Reduced sediment entering waterways.

**NRM projects have achieved measurable improvements in natural resource asset condition.**



**REGIONAL NRM BODIES IN QLD ARE HIGHLY CAPABLE**

Regional NRM bodies boast skills in:

- Natural area restoration
- Community engagement
- Disaster recovery
- Business management
- Carbon farming & environmental markets
- NRM planning and property management



# BUILDING ON ESTABLISHED RELATIONSHIPS, TRUST AND CAPABILITIES

Regional NRM bodies have a demonstrated track record building skills and capacity in regional communities, they provide local knowledge and most importantly the regional relationships required to enable government investment to be targeted and achieve the best return on investment. They have leveraged government investment by attracting additional investment from the private and philanthropic sectors

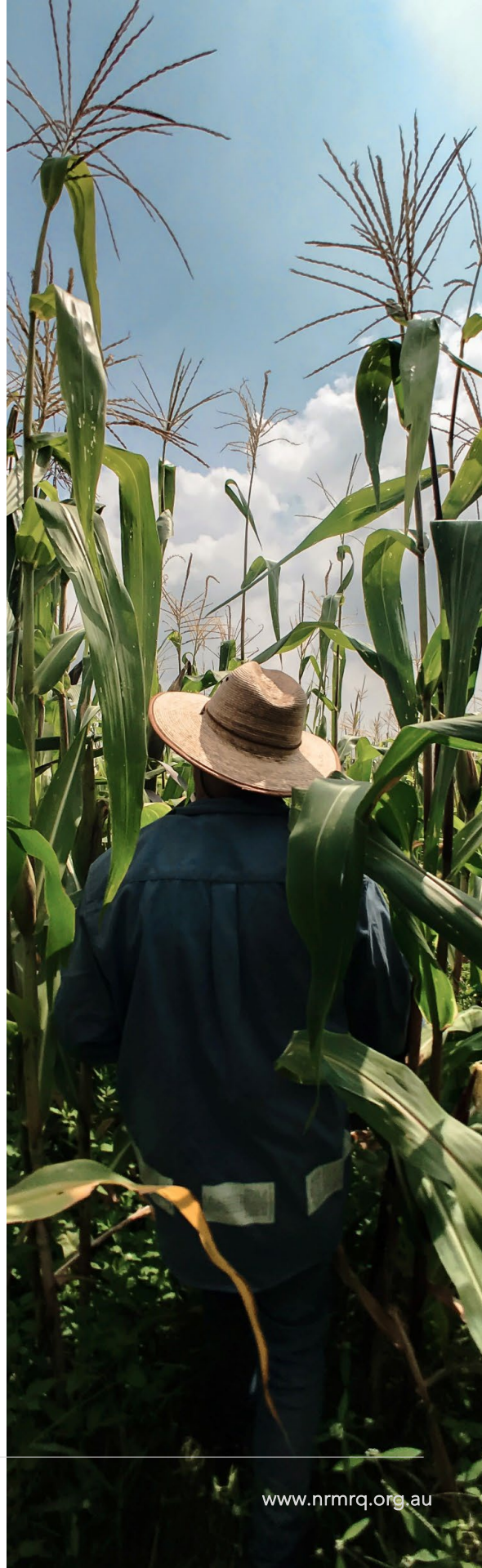
Regional NRM bodies in QLD have collaborated with the Federal government since their inception over 20 years' ago. NRM bodies in QLD have worked on numerous programs and projects, with some examples of current DAWE programs our NRM bodies are involved in provided below.

**Natural Resource Management Drought Resilience Program - Landscapes Stream: Healthy Land and Water received a grant in 2021.**

**Reef Trust Projects**

**Carbon + Biodiversity Pilot and Enhancing Remnant Vegetation Pilot**

**Drought resilience adoption and innovation hubs: Tropical north QLD hub and Southern QLD/Northern NSW hubs**





# FUTURE INVESTMENT OPPORTUNITIES FOR THE FEDERAL GOVERNMENT

A decision on funding to support QLD regional NRM bodies is needed to ensure the protection of natural assets and thriving communities

Regional NRM bodies in QLD are well established organisations with a strong connection to local communities. NRM bodies have the capacity to ensure the protection of natural assets, thriving communities and a strong economy with adequate support from the Federal Government.

Certainty is required in Federal Government funding to ensure key staff can be retained established relationships with stakeholders can be maintained. The funding also provide capacity in the existing NRM network to respond to new pressures, including climate change and natural disasters.

The delivery of \$120 million to regional NRM bodies over five years will achieve the following key outcomes:

Increase the impact on natural resources asset condition at larger scale

NRM programs have led to measurable improvements in the extent and condition of grazing land and vegetation, as well as a reduction in the amount of sediment that has entered waterways. By increasing the investment funding to address threats and protect existing assets, NRM bodies in QLD can increase its impact at a larger scale.

Build regional economic development, skills and capacity

Regional economic employment is a top priority for the Federal Government. Injections of funding into regional NRM bodies go directly to these areas, stimulating jobs, incomes and providing valuable economic activity. The NRM model is financially efficient through decades of delivery so building on that efficiency is an opportunity for the future of Federally supported NRM programs.

Retain NRM staff with local knowledge with a secure financial base

The regional NRM bodies have established an experienced staff base that offer significant local leadership as trusted advisors within the community. A solid and sustainable funding basis for operation is critical to retaining experienced staff so long-term investment plans can be implemented to ultimately improve NRM outcomes.

Integrate indigenous knowledge and support capacity building of indigenous groups

The activities of regional NRM bodies provide an established avenue for integrating indigenous knowledge and experience in the conservation of natural assets. Regional NRM bodies support indigenous groups by building respectful, inclusive and equitable partnerships, providing an economic base for on-country activities and support skill development. Integration of indigenous knowledge into NRM is still in its infancy in many regions so there is an important opportunity to develop these relationships further in the future.

# FUTURE INVESTMENT OPPORTUNITIES FOR THE FEDERAL GOVERNMENT

## Rebuilding tourism potential and diversifying economies through enhancing natural asset resilience in the Great Barrier Reef catchments

The natural wonders and local communities of the Great Barrier Reef (GBR), Fraser Island and Wet Tropics World Heritage Areas attract millions of domestic and international visitors every year, contributing over \$11.2 billion annually to the national economy. These communities have been hard hit by COVID-19 restrictions and are likely to experience lasting economic impacts due to continuing restrictions on international travel, with young workers likely to be the most highly impacted.

This collaborative regional initiative will provide meaningful employment for 1,360 workers across three conservation and land management outcomes:

1. Improving the resilience of Great Barrier Reef catchments through improved water quality: The project will scale up efforts to restore native and riparian vegetation, reduce litter/pollutant run off, enhance farm sustainability, and restore coastal marine habitats
2. Supporting threatened species recovery and viability. This will involve working with private landholder, public land managers and traditional owners to restore and expand critical habitats and manage key threats to threatened species. Implement strategic management interventions for invasive and threatened species that will leave a legacy.
3. Building skills and capacity in Indigenous communities through native plant and coral stock nurseries. Develop new and support existing native plant and coral nurseries to enable large-scale restoration and revegetation. Building on existing capacity in the region, working with Indigenous partners to support long-term conservation outcomes and capacity development (including through indigenous ranger groups working with landholders and overseeing cultural burning programs).

### Proposed budget

\$90 million

### Estimated economic impact

\$202 million

### Employment opportunity

980 FTE

# FUTURE INVESTMENT OPPORTUNITIES FOR THE FEDERAL GOVERNMENT

## Rangeland recovery teams - tackling transformative invasive weeds of the Outback

Boasting some of the world's most diverse and unusual plants and animals, the Australian Outback, or rangelands, stretch across 70% of the continent from tropical north Queensland to the red centre and the Pilbara.

The natural values of this vast region underpin the livelihoods of hundreds of communities, supporting graziers, Indigenous ranger groups and Outback tourism businesses. However, some of these values are being lost or degraded because of particular threats such as weeds, pests, fire and soil erosion.

At the same time, Outback communities have been vulnerable to the impacts of the COVID-19 economic crisis, with small job losses having had disproportionate impacts on local economies and community services.

This program would establish a number of short-term "Outback Recovery Teams", embedded in the existing regional NRM bodies and working in collaboration with indigenous rangers, Landcare groups and local governments.

These teams, composed of between 3 and 5 people (including a team leader with moderate experience and team members who may have little to no experience), will then spend 12-24 months tackling highly invasive weeds in their region.

These weeds are a direct threat to the natural, productive and cultural values of the Australian outback, as if left unchecked they have the ability to transform the outback by out-competing native species and reducing the biodiversity and fodder value of native pastures.

### EXPECTED OUTCOMES

- Increase current and future capacity for on ground weed control works in the rangelands
- Increase local employment for young people and indigenous people
- Improving land condition and agricultural productivity of the rangelands

#### Proposed budget

\$17 million

#### Estimated economic impact

\$40 million

#### Employment opportunity

170 FTE

# FUTURE INVESTMENT OPPORTUNITIES FOR THE FEDERAL GOVERNMENT

## Enhancing resilience by protecting critical natural and cultural assets in Southeast Queensland

This initiative will employ 130 workers in Southeast Queensland to deliver practical conservation and land management work across three work streams:

1. Improving waterway and catchment health;
2. Enhancing biodiversity values and supporting species recovery; and
3. Building landscape and community resilience.

Over 250 project delivery partners will work with landholders, councils and community organisations to restore coastal habitats, rainforests, riparian areas and fish habitat; manage invasive species; propagate native plants; monitor fauna and flora; and, support field research, property planning, training and social enterprise development.

More than 90% of funds will be spent locally, supporting local businesses, building social capital, improving on-farm sustainability, enhancing local amenity and the health of important natural tourism assets. Program activities will be designed to leverage substantial in-kind contributions by landholders and program partners.

This region is home to high conservation value assets, including coastal habitats, popular national parks and World Heritage rainforests (Gondwana Rainforests), two Ramsar Wetlands (Moreton Bay & bordering the Great Sandy Strait) and hundreds of conservation reserves, including a number of marine reserves. The region's diverse geography supports a highly diverse fauna and flora, a high degree of endemism and many threatened and migratory species.

### Proposed budget

\$15 million

### Estimated economic impact

\$34 million

### Employment opportunity

130 FTE

# FUTURE INVESTMENT OPPORTUNITIES FOR THE FEDERAL GOVERNMENT

## Regional NRM bodies in QLD leading disaster resilience and recovery

The total economic cost of natural disasters is growing and is expected to reach \$39 billion per year by 2050.

NRM bodies in QLD propose to deliver 26 projects for \$30M in collaboration with the QLD National Recovery and Resilience agency and partners. Details of these projects are available in the National Recovery and Resilience Agency Project Submissions from Queensland's regional NRM bodies (NRMRO 2021). An example of one of the projects proposed is provided below.

### PROJECT EXAMPLE

#### **Property Resilience Plans into Action** **Regional Body: Fitzroy Basin Association**

Work with landholders in rural areas to develop individual business continuity plans. In case of a disaster, the plan will guide a landholder to effectively continue with the business and mitigate the foreseeable impacts. Whilst developing the plan there could be small projects that can be undertaken to ensure safe holding areas for cattle or protecting vital infrastructure. These projects can be completed immediately creating and the incentive to prompt landholders to identify and mitigate risk, growing resilience of individual rural enterprises.

#### **Objectives**

- Engage 40 Landholders
- Develop 30 Business Continuity Plans
- Conduct flood and bushfire modelling, drought, and biosecurity mitigation strategies
- Identify risks and prepare preventative measures
- Encourage completion of simple works to reduce known risks on property.

#### **Estimated costs to deliver these services**

\$30M<sup>1</sup> for 26 projects over 1-2 years depending on projects selected.

1. Refer to National Recovery and Resilience Agency Project Submissions from Queensland's regional NRM bodies [www.nrmrq.org.au](http://www.nrmrq.org.au) (NRMRO 2021).

# FUTURE INVESTMENT OPPORTUNITIES FOR THE FEDERAL GOVERNMENT

## Regional NRM bodies in QLD developing nature-based tourism opportunities

Many of Queensland's best and most popular tourist attractions are natural places, offering accommodation and/or activities like bushwalking, fishing, wildlife watching, and tours that allow people to experience and learn about nature.

There are currently five Queensland properties on the World Heritage List. There are two internationally recognised - and adjoining - UNESCO Biosphere reserves, 310 National Parks, 226 Conservation Parks, 400 Nature Refuges, five Ramsar internationally important wetlands and over 200 nationally important wetlands. Over 27,000 parcels of land throughout Queensland have been set aside as either reserves or deeds of grant in trust and are collectively referred to as 'trust land'.

Management of reserves or trust land includes the control of pest plants and animals, protecting and maintaining any improvements, and ensuring the land is used in a manner consistent with the purpose of the trust land. NRM groups have wide experience across the state and are perfectly positioned to assist with any of these activities, as well as providing brokerage and auditing functions where required. All NRM groups have a strong history of working with Traditional Owners, and skills and experience in ensuring that any developments are culturally appropriate.

Regional NRM bodies can help provide more opportunities for nature-based destination development and development of caravan overnight stops across Queensland, including enhancing biodiversity and the provision of basic infrastructure, e.g., signage and landscape protection.

Regional NRM bodies can also help develop walking trail opportunities in reserves by creating new tracks, joining existing shorter hikes together to make longer treks, and provision of information for signage and associated literature.

Roadside reserve areas are an essential part of drive tourism, which supports local economies, builds tourism destinations and creates employment. Regional NRM bodies local knowledge and experience in project and volunteer management can be utilised to provide better access tracks, management of permanent waterholes, or the establishment of boat ramps for kayaks. This also applies where stock routes intersect with highways and camping reserves - skilled assistance can be provided with management of these.

### Estimated costs to deliver these services

\$1.6M<sup>1</sup> per year for 15 years, plus another \$30K - \$40K per reserve to engage and work with the Traditional Owners where cultural sites occur on public reserves.

1. Estimated based on 15 areas x \$50K per area for infrastructure + \$15 x \$30K for staff + 5 x \$50 for specific infrastructure like kayak ramps or boardwalks etc. + 15 x \$10 for comms and promotion.

# FUTURE INVESTMENT OPPORTUNITIES FOR THE FEDERAL GOVERNMENT

## Increasing Traditional Owner employment and collaboration

Regional NRM bodies are committed to working with Aboriginal and Torres Strait Islanders. Regional NRM bodies support the employment of over 350 First Nations peoples as community delivery partners. In working with First Nations peoples, regional NRM bodies:

- Provide an economic base for indigenous employment
- Support Indigenous people, including youth and Elders to get back on country
- Provide related mental health benefits, particularly in terms of mitigating social disconnection and the risk of suicide
- Enable individual and community healing, cultural reinvigoration and ability to practice cultural activities and care for sites and landscapes of cultural importance
- Provide training and skill development, including skills in business management, reduced substance abuse, more functional families, improved early childhood development, increased social harmony and increased community pride

Regional NRM bodies in QLD have identified opportunities for further collaboration on NRM projects.

### **ALIGNMENT WITH NATIONAL AGREEMENTS**

#### **United Nations Declaration**

The Australian Government's commitment as a signatory to the United Nations Declaration on Rights of Indigenous Peoples

#### **Traditional Owner Participation in NRM**

The Australian Government's commitment to increasing Traditional Owner participation in natural resource management through National Landcare Program and Regional Land Partnerships

#### **Closing the Gap**

The Council of Australian Government's commitment to Closing the Gap in Indigenous Disadvantage

[www.nrmq.org.au](http://www.nrmq.org.au)

# FUTURE INVESTMENT OPPORTUNITIES FOR THE FEDERAL GOVERNMENT



## Research Partnerships

The NRM Queensland 2020 Research Prospectus findings (NRMQR 2020) was prepared to collate information regarding NRM research requirements across Queensland and identify opportunities for research partnerships between regional bodies, research organizations, NRM peak bodies, government and other investors to deliver mutual benefits to natural resource assets.

The NRM Research Prospectus identifies the key challenges to effective NRM research partnerships being formed and practical options to address these issues.

Given the intimate connectivity between natural resource assets and threats, for example water quality and agricultural land condition, it's important that Federal government funding utilises collaborative research opportunities to ensure the delivery of long-term NRM projects which maximise the improvement of natural resource assets and threat mitigation.

Opportunities for research partnerships with the Federal Government could include:

- Managing fire regimes in multiple use landscapes.
- Integrating sustainable uses of land and seascapes.
- Reducing risks from mining.
- Building commercial opportunities in NRM.
- Hunting and harvesting of native species.
- Anticipating emerging livelihood opportunities.
- Protecting significant species.
- Supporting ecological burning.
- Protecting & supporting climate refugia.
- Managing invasive species.
- Setting realistic goals for regional biodiversity.
- Detecting underlying responses to climate change.
- Planning for future uses of natural resources.



# SUCCESS STORIES

## *Assisting the growth of the agricultural sector*



## Weeds-to-compost: a winning process

As part of North Queensland Dry Tropics' Reducing Burdekin Sediment NRIP projects, the NQ Dry Tropics NRM body has conducted a composting trial which turn aquatic weeds into valuable compost while restoring the health of creeks and waterways on five cane growers' properties. Rapidly growing aquatic weeds threaten the ecology of certain local waterways, restricting the habitat of fish, turtles and waterfowl in reaches of the river.

Building on the success of the composting trial, the Waterways, Wetlands and Coasts Team Leader at NQ Dry Tropics, Scott Fry started engaging with farmers on how to compost their weeds through fermentation methods. The fermentation method for composting aquatic weeds is simple and requires less time, money, water and machinery to create great quality compost.

The actions undertaken by North Queensland Dry Tropics are critical to avoiding waterway health degradation and re-infestation of weeds at other properties downstream.

In addition to improving water quality, the weeds-to-compost activity being employed by North Queensland Dry Tropics also benefits soil health. This project is a shining example of the innovation management practices and multiple landscape benefits arising from NRIP projects.



Agro-ecologist David Hardwick explains the process to a group of growers in the Burdekin.

# SUCCESS STORIES

*Improve  
stewardship and  
sustainable  
management the  
environment*

## Cool burning, a tool for property management

A Condamine Headwaters Landcare Group workshop created an ideal collaboration space where staff from Southern Queensland (SQ) Landscapes and property owner Morgan connected and began to discuss options for support and learning opportunities to reduce dead woody debris in Almor Park (Maryvale) in the Condamine headwaters.

The project was designed to mitigate wildfire risk by reducing woody debris and leaf litter through integrated weed and cool burning fire management, adopting a holistic management approach. This project will be closely monitoring how weeds respond to cool burning, to understand how burning can be integrated into other control methods.

This project established partnerships between Condamine Headquarters Landcare Group, SQ Landscapes and the Githabul business, Fire Lore. Increased engagement with Fire Lore has been beneficial to delivering successful fire management practices as well as improve SQ Landscapes understanding of Traditional Owners aspirations to get on country.



Fire Lore practitioners undertaking a cool burn.

# SUCCESS STORIES

*Sustainably manage water resources for agriculture, the environment and communities*

## Improving aquatic connectivity in Mackay and the Whitsundays reef catchment

The links between coastal marine waters, freshwater rivers and wetlands are vitally important for fish life cycles and development. These areas act as important habitats for diadromous fish, such as the barramundi which need to migrate between marine and fresh waters to complete physiological developments during different stages of their life cycle.

Over 50 per cent of the Mackay Whitsunday Isaac region's freshwater fish species migrate between saltwater and freshwater environments to complete their life cycle. Constructed barriers prevent native fish from reaching freshwater nursery habitats, resulting in reduced population numbers.

To help retain fish passage, Reef Catchments work with landholders, councils and contractors to improve fish passage. To date 7 barriers have been remediated and two habitat pools created. Thus, increasing connectivity and ensuring the survival of fish species as well as ecological integrity of rivers, in addition to adapting the fishway design to allow for fish passage under drying climates.



Tedlands Barra ladder during flow

For further information regarding this submission please contact  
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