



**MACKAY  
WHITSUNDAY  
ISAAC**  
**REEF COMMUNITY  
ACTION PLAN**



# Project Prospectus

March 2021



Great Barrier  
Reef Foundation



JURU

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YUWI

MACKAY

BARADA BARN

## Acknowledgement of Country

Reef Catchments would like to acknowledge the Traditional Owners past and present. We acknowledge their spiritual and cultural connection and their responsibility as Traditional Owners to maintain and care for Country.

Reef Catchments recognises the important role Traditional Owners play in natural resource management, in particular the unique connection and understanding they have to Land, Sea and Waters. Traditional knowledge in Land, Sea and Water management practices will direct future pathways in maintaining and enhancing sustainable landscapes (MWI Traditional Owner Strategic Plan 2017-2027).

KOINMERBURRA

REEF CATCHMENTS



## INTRODUCTION

The Mackay Whitsunday Isaac Reef Community Action Plan (CAP) has been developed with community stakeholders and captures the Mackay Whitsunday Isaac community's collective priorities in relation to protecting the Great Barrier Reef. This project prospectus outlines the key priority projects that were identified by the community and provides a clear plan for their implementation.

## THE MACKAY WHITSUNDAY ISAAC REGION AND COMMUNITY

The Traditional Owners of the Land, Sea and Waters of the Mackay Whitsunday Isaac region include the Yuwi, Koinmerburra, Ngaro, Gia, Juru, Barada Barna and Wiri peoples.

The region is a gateway to the Great Barrier Reef and surrounding islands, drawing visitors from all over the world. Our productive agricultural land comprises sugar cane, cattle grazing and horticulture, which has supported and shaped our economy, culture and heritage since the 19th century. More recently the surrounding Central Queensland coalfields have influenced our region through the provision of vital infrastructure to support the mining industry, including one of the world's largest coal terminals at Hay Point. Our region is home to an abundance of iconic species and landscapes, with the Clarke Connors Range providing habitat for many endemic species, and the coastline a key habitat for migratory shorebirds and turtles.

In the Mackay Whitsunday Isaac region, the Reef is intrinsically linked to local economy and culture. Our region has a population of more than 152,000 people, but this often swells further with domestic and international tourists, with 248,000 international tourists visiting the region from March 2018 to March 2019 (Tourism and Events Queensland, 2020), and it's likely that much of this was related to the Great Barrier Reef.

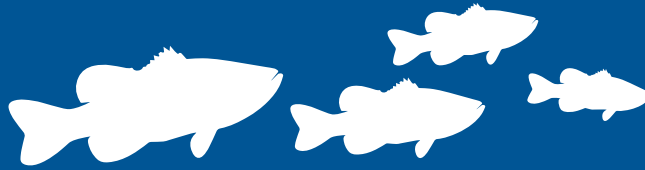
## DEVELOPMENT OF COMMUNITY PROJECTS

In October 2020, Reef Catchments hosted participatory workshops with the Mackay Whitsunday Isaac community, the Mackay Whitsunday and Isaac Traditional Owner Reference Group and Reef Catchments' 2020 Youth Ambassador group. Priority values and projects to protect these values were identified by the community through these workshops.



# TOP THREE REEF VALUES OF THE MACKAY WHITSUNDAY ISAAC COMMUNITY

- 1. CORAL REEFS**
- 2. CATCHMENTS AND ESTUARIES**
- 3. MANGROVES**



## THE KEY PRIORITY PROJECTS THAT WERE IDENTIFIED BY THE COMMUNITY ARE OUTLINED BELOW AND ARE SUMMARISED IN MORE DETAIL IN THE COMING PAGES

### **Project 1. Helping local families, schools, businesses and visitors reduce their carbon footprint by reducing food waste**

In this strategy, council and key local organisations work together to identify a key behaviour relating to food waste and work with a local hero to identify and overcome barriers to behaviour change before the program is rolled out to other families and food waste is reduced in the Whitsundays.

### **Project 2. Working with schools to reduce litter and waste**

In this strategy, local school students work with their tuck shop to swap common plastic items for more sustainable options, while simultaneously establishing their own self-funding scheme through the containers for change program. This strategy would be piloted at one school before it is promoted and rolled out to other schools.

### **Project 3. Coordinating citizen science to protect Reef communities**

This strategy would enable the region-wide coordination of citizen science by establishing a citizen science coordinator. The citizen science coordinator would assist existing regional citizen science groups to address key barriers that would enable an increase in their capacity and therefore participation in citizen science.

Together, these projects will contribute to water quality improvements, waste and carbon reduction and knowledge and capacity building. Collectively, the implementation of these projects offers additional outcomes:

- Enhanced partnerships between different community stakeholders, science and government
- Raising awareness of Reef values and threats to generate stewardship by the community
- Strengthening Traditional Owner partnerships in the community

We invite you to consider the projects outlined in this prospectus and the investment opportunity now available to join our community partners in undertaking these key projects and contribute the protection of our region and Reef.



## PROJECT 1: HELPING LOCAL FAMILIES, SCHOOLS, BUSINESSES AND VISITORS REDUCE THEIR CARBON FOOTPRINT BY REDUCING FOOD WASTE

*The Great Barrier Reef is important to the socio-cultural fabric of the Whitsundays community, and the number one threat facing it today is climate change. The purpose of this project is to initiate carbon reduction projects throughout the community, starting with reducing food waste at a household level.*

### The Threat

The number one threat to the Great Barrier Reef, and a range of other ecosystems, is climate change. In order to limit global warming and its impact on the Reef, the global community need to act to reduce greenhouse gas emissions.

The Food and Agriculture Organisation in 2011 estimated that one-third of all the food produced in the world goes to waste. Methane production from food waste sent to landfill is a particular problem, as methane is 28 times more powerful as a greenhouse gas than carbon dioxide, over a 100 year period. About 11% of all the greenhouse gas emissions that come from the food system could be reduced if we stop wasting food.



### The Project

This will be a pilot project, working with a range of stakeholders and a local hero to establish and demonstrate a behaviour change project targeting household food waste. In the initial phase of the project, a steering committee and/or project leader will be established. This entity will engage a consultant to research existing strategies, barriers and benefits in order to choose which behaviour will be targeted. The chosen behaviour should be relatively inexpensive and easy to implement at a household level, not requiring special resources. An example target behaviour is composting.

Once a behaviour has been selected and the barriers to adoption are understood and addressed, a local hero will be sought to implement a pilot project. Learnings from this pilot project will feed into how we understand and address the barriers, until a final approach is established. This final approach, modelled by the local hero, can then be rolled out to other local family households.

Using composting as an example, barriers may include a lack of equipment and knowledge. The project could address these barriers by working with a men's shed to build composting bins or worm farms, and develop educational material that would be available with the bin/worm farm. The local hero would test out the materials and provide feedback. The feedback would direct how to more successfully roll out the project to others in the community.

### Project outcomes:

- Engagement and education of local families
- Active participation in reducing food waste
- Contribute to United Nations Sustainable Development Goal 12
- Instigate action on climate change at a local scale
- Synthesise learnings from this pilot project to develop a template or toolkit which can easily be rolled out to sectors of the community including to schools and tourists.

### Long-term outcomes:

- Reduce waste going to landfill
- Generate attitude change within the community
- Reduce carbon footprint of households in the Whitsundays
- Contributes to protection of coral reef ecosystems.

### Potential partners:

- Great Barrier Reef Foundation, through the Whitsunday Reef Islands Initiative
- Whitsunday Regional Council Climate Hub
- ABC's Dirtgirl
- Men's shed.

### Project activities:

- Establish a project leader or steering committee
- Literature review of known barriers and benefits (taking a community-based social marketing approach), and existing similar projects
- Finalise target behaviour based on results of review
- Identify local hero to test project targeting identified behaviour
- Develop appropriate materials for pilot project
- Deliver pilot project
- Incorporate feedback from the pilot project
- Synthesise learnings from this pilot project to develop a toolkit for upscaling project to other families and/or other sectors of the community.

### Recommended project timeframe

Two years.

### Indicative project budget

\$250,000.



## PROJECT 2 : WORKING WITH SCHOOLS TO REDUCE LITTER AND WASTE

*The school's waste reduction program is a dual initiative to reduce single-use plastics in school tuckshops and increase recycling within schools by initiating a Containers for Change program. The purpose of this project is to reduce the amount of waste entering the Great Barrier Reef Marine Park and increase knowledge within schools about circular economies.*

### The Threat

Marine debris is a major threat to the wildlife within the Great Barrier Reef, as well as impacting its aesthetic and recreational value. Debris can make its way to the Great Barrier Reef through stormwater drains, windy weather, and accidental or deliberate littering at sea or on land. More than 80% of marine debris found in the Reef is plastic, which can break up into smaller pieces and travel vast distances, increasing the risk of impacts on wildlife. It is also estimated that approximately 80% of marine debris originates as land-based rubbish.

Community action to choose sustainable options, minimise waste and undertake stewardship activities is required to reduce the impacts of marine debris on the Reef.



### The Project

This twelve month project could see Reef Catchments or another group partner with a school from the Mackay Whitsunday Isaac region to design and deliver a pilot project for reducing waste from schools. The first component of this project will involve auditing the tuck shop to identify single-use plastics which can be phased out, and replaced with more sustainable options.

The second component of this project will involve establishing a Containers for Change recycling program with the partner school. In the early stages of the project, Reef Catchments will work with the school to establish a methodology including the best place for the location of recycling bins, a process for who will deposit the containers and how that will be done. The appropriate equipment and PPE will be purchased, but it is expected that the longer-term running costs (e.g. bags for the containers) will be covered by the profits of the Containers for Change scheme. An exciting part of this component of the project is that the students from the school will set a goal for what they would like to use the money on. This gives an incentive for being actively involved.

Learnings from this project would help to direct the potential roll out of similar projects to other schools.



### Project outcomes:

- Improve recycling within the school
- A self-sustaining project with profits able to be invested in outcomes prioritised by students
- Reduce the amount of single-use plastic waste generated from the school
- Synthesise learnings from this pilot project to develop a template or toolkit which can easily be rolled out to other schools in the region.

### Long-term outcomes:

- Increase awareness about which containers can be recycled, improving recycling at a household level
- Reduce the amount of litter reaching the Great Barrier Reef
- Contribute to protecting a range of ecosystems and wildlife throughout the Great Barrier Reef Marine Park and catchment area.

### Potential partners:

- Reef Guardian schools
- Great Barrier Reef Marine Park Authority
- Mackay Regional Council (then other local councils after a successful pilot)
- Reef Catchments Youth Ambassadors
- Anything Environmental (a local business involved in the Containers for Change program).

### Project activities:

- Identify pilot school
- *Reduce single-use plastics in tuckshop*
  - Perform tuckshop audit
  - Source sustainable alternatives
  - Monitoring and general project management
- *Establish Containers for Change scheme*
  - Register school
  - Students set profit goals
  - Methods established
  - Purchase of equipment (bin, stickers for bin, biodegradable bags, PPE)
  - Monitoring and general project management.

### Recommended project timeframe

Twelve months.

### Indicative project budget

\$50,000.



## PROJECT 3: COORDINATING CITIZEN SCIENCE TO PROTECT REEF COMMUNITIES

*The Great Barrier Reef and associated coastal habitats provide a diverse and extensive environment for scientists to understand and there is a long history of citizen science programs that contribute to this understanding. The purpose of this project is to enable a more coordinated approach to the delivery of citizen science in the Mackay, Whitsunday and Isaac region to increase participation, capacity, efficiency and information availability.*

### The Threat

Human caused threats such as climate change, poor water quality, coastal land use change and direct use are considered to pose the greatest challenges for the future management of the Great Barrier Reef. As a consequence, a multitude of programs operate across various scales to manage these threats. Successful management programs rely on the timely availability of sufficient and reliable data. Within the context of a vast and diverse Reef, this is a known challenge for scientists. Another challenge for scientists and managers is to build community understanding, knowledge and awareness, to encourage community and stakeholders to take action to protect the Reef.

Citizen science programs are one strategy that have the potential to improve cost-effectiveness of monitoring, at the same time as building community understanding, knowledge and awareness of the Reef. Yet citizen science groups in the region have identified numerous challenges, including insufficient and inconsistent funding, lack of capacity (including staff and volunteers), a lack of connection to technical expertise – including to assist with monitoring design, quality assurance and quality control (QAQC), data management and sharing – and a lack of understanding and wider use of the data they collect.



## The Project

This initial two-year project would see a part time citizen science coordinator established for three days a week, to work closely with the existing citizen science groups to form a network of citizen science groups in the region, identify collective needs and find pathways for addressing those needs. The overarching goals of the coordinator would be:

### 1. Directly support citizen science groups

The coordinator will support citizen science groups to identify and apply for funding, promoting citizen science initiatives in the media (including social media) and organising training for citizen science groups and volunteers. This will lead to an increase in capacity for the groups and ultimately an increase in participation in citizen science programs, leading to an increase in community understanding, knowledge and awareness of Reef health.

### 2. Bridge the gap between citizen science groups and end-users of the data

Understanding barriers to wider data use from potential end-users will be a key initial step to addressing these barriers. It is anticipated this will lead to the coordinator working with citizen science groups to adapt some methods or program design to address data needs; initiate, provide or promote QAQC processes; and develop data sharing agreements and protocols. This will lead to an increase in data availability (real or perceived) and use across the region.

## Project outcomes:

- An increase in participation in regional citizen science projects
- An increase in capacity and efficiency of regional citizen science groups
- An increase in regional understanding and use of citizen science data.

## Long-term outcomes:

- Improving the involvement and support of local communities in monitoring, protecting, managing and sustainably using the Reef (Reef 2050 Long Term Plan Foundational Activity)
- Contribute to strengthening programs to understand and promote the Reef's values and threats, as well as opportunities to contribute or play a role in protecting and managing the Reef (Reef 2050 Long Term Sustainability Plan Foundational Activity)
- Contribute to protection of coral reef, seagrass and mangrove ecosystems.

## Potential partners:

- Regional citizen science groups including: Whitsunday Seagrass Watch, Reef Check, Reef Ecologic, Eco Barge Clean Seas, Tangaroa Blue, Mangrove Watch
- Mackay-Whitsunday-Isaac Healthy Rivers to Reef Partnership
- Mackay Regional Council, Whitsunday Regional Council, Isaac Regional Council (potential data users).

## Project activities:

- Establish coordinator
- Establish citizen science network
- Scoping study to assess needs of citizen science groups
- Scoping study to assess barriers to wider data use
- Capacity building for citizen science groups
- Promotion of citizen science initiatives and events
- Facilitate processes to increase regional data use.

## Recommended project timeframe

Two years.

## Indicative project budget

\$320,000.

# CONTACT

## Reef Catchments (Mackay Whitsunday Isaac) Limited

To discuss the projects outlined in this prospectus or how you can be involved:

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