

reef guardians

**WORKING TOGETHER TODAY
FOR A HEALTHIER REEF TOMORROW**



Australian Government
**Great Barrier Reef
Marine Park Authority**



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MESSAGE FROM THE MINISTER



Australians can be proud of the Great Barrier Reef; it is an extraordinary natural wonder that is recognised around the world for its special beauty and biodiversity.

The Reef is not only enjoyed by millions of people who travel from across Australia and around the world, it supports a vibrant business and industry community that relies on the Reef's rich diversity and good health for continued success.

The Great Barrier Reef is one of the healthiest Reefs in the world due to best practice management and the ongoing commitment of Government to its long-term sustainability.

However, we can't afford to be complacent. The Reef faces significant pressures from a changing climate, declining water quality, increasing coastal development, illegal fishing and poaching and a few remaining impacts of fishing.

In May 2010, the Australian Government committed \$3.8 million over two years to improving the Reef's outlook, through the Reef Guardian's program.

This funding has enabled the Australian Government through the Great Barrier Reef Marine Park Authority to build on its highly successful Reef Guardians stewardship program, which recognises and rewards environmental initiatives.

The Reef Guardians Schools, Councils, Fishers and Farmers featured in this brochure are taking action locally to help make a difference to the Great Barrier Reef. They can be proud of their efforts, they will leave the Reef a better place for many more millions of people to enjoy into the future.

The Hon Tony Burke, MP

Minister for Sustainability, Environment, Water, Population and Communities.

For more information about the Reef Guardian Stewardship Program go to www.gbrmpa.gov.au, email us at reefguardians@gbrmpa.gov.au, phone us on (07) 4750 0809 or follow us on facebook at www.facebook.com/GreatBarrierReefMarinePark

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A PRECIOUS RESOURCE RIGHT ON OUR DOORSTEP

It's big, really big, almost 345,000sq kilometres. It's home to thousands of species of plants and animals, it plays an important role in the lifestyles and livelihoods of hundreds of thousands of Queenslanders... and it's right on our doorstep.
Our Great Barrier Reef.

This World Heritage listed icon is the world's most extensive coral reef ecosystem and recognised as one of the richest and most diverse natural areas on Earth.

As well as being an environmental powerhouse, this multi-use Marine Park is also a vital economic hub; contributing over \$5 billion to the Australian economy each year. It is central to a range of activities including tourism, commercial fishing, recreational boating and fishing, shipping, diving, aquaculture and research. Most of these activities require a vibrant and healthy reef ecosystem to be viable.

While our Great Barrier Reef continues to be recognised as one of the healthiest coral reef ecosystems in the world, it faces some challenges which impact on its health and resilience.

It's no surprise that the impacts of climate change dominate predictions about the Reef's future health. However, continued declining water quality from catchment run-off, loss of coastal habitats from increasing coastal development, illegal fishing and poaching and a few remaining impacts of fishing are also priority issues which are reducing the resilience of the Reef.

But the good news is...

Every day, individuals and organisations who use and enjoy the Reef for leisure and recreation or to make their living are taking practical steps to help safeguard its future.



Australian Government

**Great Barrier Reef
Marine Park Authority**

REEF GUARDIANS, WORKING TOGETHER TODAY FOR A HEALTHIER REEF TOMORROW

The Great Barrier Reef Marine Park Authority's Reef Guardian program is proving that a hands-on, community-based approach to caring for the Great Barrier Reef is essential to help preserve its immense social, economic and environmental value.

The Reef Guardian Stewardship Program involves the Great Barrier Reef Marine Park Authority building relationships and working closely with those who use and rely on the Reef for recreation and business.

With the aim of guiding everyday actions and decisions in a way that will help to ensure long-term environmental benefits for the Reef, the Great Barrier Reef Marine Park Authority launched the Reef Guardian program in 2003 with Reef Guardian Schools.

Eight years on, the Reef Guardian program continues to go from strength to strength.

Over 60,000 students from over 230 schools including State, Catholic and Independent campuses across Queensland are now involved in the Reef Guardian Schools program.

Thirteen councils covering the coastline from Bundaberg to Cooktown are also signed up to the Reef Guardian Council program. The program highlights the actions undertaken by the councils to address some of the key pressures on the Reef.

Funding from the Australian Government in 2010 allowed the Great Barrier Reef Marine Park Authority to expand the Reef Guardians initiative to include opportunities for the farming and fishing industries.

Although still in the early stages of development, the recently launched Reef Guardian Fishers and Reef Guardian Farmers pilot programs highlight and promote initiatives in these sectors that are delivering significant environmental benefits, over and above what is required by law.

The pilot programs aim to foster the sharing of information and the uptake of actions that will help to improve the economic sustainability of these industries and ensure the environmental sustainability of the Great Barrier Reef Marine Park by improving its health and resilience.



reef guardians



Participants in the Great Barrier Reef Marine Park Authority's Reef Guardian Farmers pilot program are passionate and forward-thinking farmers and graziers who want to tell Queenslanders about their sustainable farming practices and how they are doing their bit to look after the amazing Great Barrier Reef.

Many farmers do great work on their properties to conserve the environment. The Reef Guardians Farmers program is about sustainable farming practices that are economically viable as well as being environmentally sound.

The Great Barrier Reef Marine Park Authority is working with Reef Guardian Farmers and Graziers in this voluntary program to recognise and promote sustainable land management practices that lead to a healthier reef, now and into the future.

Changing to more sustainable land management practices takes time and resources, like installing global positioning systems in tractors to streamline planting or installing trickle irrigation technology to reduce water use. However, Reef Guardian Farmers

are aware that by adopting new practices and investing in new technology, they not only improve their farms' financial returns, they are also working towards delivering a range of environmental benefits, including:

- Water resources for clean and healthy catchments
- Efficient energy systems that minimise greenhouse gas emissions
- Healthy soils through wise mineral and nutrient management
- Sustaining the functions of natural areas, wetlands and forests on properties, and
- Running a business that is resilient to natural and economic variability

These producers are demonstrating that they are willing to lead with change and to foster the sharing of information amongst their peers. The pilot Reef Guardian Farmers and Graziers are aiming to showcase how the uptake of sustainable practices will help to improve both the economic and environmental sustainability of the farm and ensure the environmental sustainability of the Great Barrier Reef Marine Park by improving its resilience.



TESTIMONIAL

"Canegrowers' vision is to ensure a secure and profitable future for cane farmers. We are strong supporters of the Reef Guardian program."

Steve Greenwood
Chief Executive Officer, Canegrowers Australia



CANEGROWERS

PILOT PARTICIPANTS

A better industry for the next generation

Alan Robino describes himself as 'a typical farmer'. He is a third-generation canegrower from Ingham whose passion is typical of many farmers who want to pass on productive, healthy land and a better industry to the next generation. Alan believes the key to a successful future is in looking after the soils. Keeping soil where it is needed in the paddocks and not on roads or other run-off areas is his intention, as is improving the biological health of soils so future opportunities for new or different crops are not lost.

Alan stands out as a grower making a difference by constantly testing assumptions about growing practices such as finding the best harvest extractor speeds to minimise the loss of nitrogen during harvest, and maximising green trash blanketing. Alan prefers to hire modern machinery to do the seasonal jobs and believes this reduces his fuel and energy consumption significantly over using old machinery.

What makes Alan want to be a Reef Guardian Farmer? He has a passion for the cane growing community, and sees Reef Guardians as a way of getting on with the job, and getting the best outcomes for farmers and the community. Like many farmers in the area, Alan is also a keen fisher and he wants clean and healthy waterways and a lifestyle that includes rewarding recreational fishing at his backdoor.



TESTIMONIAL

"Growcom embraces and promotes innovative, responsible farming and business practice and is helping shape the future of the Reef Guardian program for horticultural farmers."

Scott Wallace

Land and Water Manager, Growcom



growcom
together we grow

Reef Guardians by Nature

Tony and Marjorie Ross are cane farmers by trade but Reef Guardian Farmers by nature.

Basic management adaptations to their Mackay cane farm have reduced the amount of sediment and nutrients that run-off the farm. They have worked to rebuild the health of the land starting with controlled traffic farming, which is a simple approach that controls the impact of heavy machinery on the soil and minimises the time spent working the soil. Controlled traffic farming makes a dramatic difference in reducing soil compaction, which helps improve the health of the soil and minimises fuel use.

Tony and Marjorie also keep a grassy cover over headlands and drains to filter run-off.

In a step to reduce fertiliser use, weather forecasting tools are used to help determine optimal times for spraying or fertilising.

In addition to their current work, Tony and Marjorie have plans to trial organic fertilisers on a five hectare section of the farm and compare the cane yields with conventionally fertilised crops.



Together We Can Help the Reef

Mark and Carol Rossato have farmed sugar cane near Home Hill in the lower Burdekin for over 30 years. They have seen some significant changes in the industry and the environment in that time, including the loss of natural areas, the death of many old trees, and an increase in weeds such as paragrass and hymenachne. Much of the clearing was done decades ago and they say the community is now witnessing the long-term effects of declining ecosystems.

Mark is driven by the need to “build the perfect soil” using holistic farming principles and minimal working of the ground. Rather than continuing to mine the land, the Rossatos’ interest is in building the land’s capacity for life and productivity.

By using electromagnetic induction (EM) mapping of soils, fertiliser can be applied at different rates across a paddock, based on actual soil needs. This means less fertiliser is used and less excess is wasted through run-off. Mark intends to link the fertiliser application data to actual yield data to fine-tune the productivity of each paddock.

By shifting to minimal tillage and controlling the traffic that impacts the ground, Mark has not only improved the soil health and water infiltration capacity, but he estimates he has reduced his need to sit on a tractor from thousands of hours a year to less than 200 hours. This reduces greenhouse emissions and gives him more time to do the important jobs of managing a modern farming operation.

When asked what they think their actions do to make a difference to the future health of the reef, the Rossatos’ say: “Our efforts are just one part of it, together everyone’s actions can help the Reef”.





A healthy Great Barrier Reef is needed to support a viable commercial fishing industry. It's important that commercial fishers in Queensland are working with the Great Barrier Reef Marine Park Authority to ensure a healthy reef for the future.

The Reef Guardian Fishers pilot program showcases fishers who are fishing sustainably and maintaining the health of the Great Barrier Reef while building a viable future for their fishery.

The Reef Guardian Fishers pilot program is aimed at commercial fishers that fish in the Great Barrier Reef Marine Park. Participants in our pilot programs are already using practices that go above and beyond what's required by State and Federal laws.

Reef Guardian Fishers care about the Great Barrier Reef; they realise that the success of their business relies on the Reef being healthy.

- They set robust protocols for their operations.
- They develop innovative practices to minimise their environmental impact.
- They are happy to share knowledge with other fishers and their communities.

The program commenced this year, and so far has involved setting up discrete pilot programs in two commercial fishing sectors:

- Reef Line fishery
- Marine Aquarium Fish and Coral Collection fisheries.

The aim is to expand to other fisheries as the program progresses.

Fishers that have agreed to be part of these pilot programs have described how their operations deliver on outcomes in five key areas: fishing operations, vessel operations, business management, community engagement and risk management.

Throughout the pilot program, fishers and the Great Barrier Reef Marine Park Authority will be thinking about other actions that could also be included in the program.

A key initiative of the Reef Guardian Fishers program is involving all pilot participants in using an emissions calculator to measure their carbon emissions and find ways to be more energy and cost efficient.

Reef Guardian Fishers are also reporting back to the Great Barrier Reef Marine Park Authority on the health of the marine environment. They report on any coral damage, such as that caused by bleaching or crown of thorns starfish, and on sightings of rare or unusual species they see. With an area of almost 345,000 kms to keep an eye on, this environmental reporting helps the Great Barrier Reef Marine Park Authority to keep in touch with what is happening on the Great Barrier Reef.

QUEENSLAND SEAFOOD INDUSTRY ASSOCIATION

Supporting the Reef Guardian Fishers Program to promote a viable, wild caught fishing industry for the future.



REEF LINE PILOT PROGRAM

The first Reef Guardian Fishers pilot program was in the Reef Line Fishery, which was launched in March this year. Fishers involved in this pilot program fish the Great Barrier Reef from Cockburn Reef in the Far North to the Swains Reefs in the south.

This is a very selective fishery, it doesn't catch much more than the few species that the fishers want. Reef Line fishers typically use motherboats along with several dories. Each dory is operated by a single doryman who fishes with one hook on one line catching one fish at a time. Many of the dorymen even use view buckets to see what fish are around their baited hook.

Fishers in the pilot program fish in the right zones and ensure that fuel transfer procedures are followed to minimise fuel loss into the marine environment.

They also fish in ways that maximise the health of fish populations. They use non-stainless steel hooks that rust away quickly in saltwater, which means that any fish that gets away with a hook in it will recover quickly. These fishers release any unwanted fish close to the reef so they can escape predators and get back to the reef safely.

Reef Guardian Fishers will be working with the Great Barrier Reef Marine Park Authority over the next year to find ways to protect their operations and limit additional stress to the Great Barrier Reef in the case of severe weather events, like floods and cyclones, and climate change.



Gareth Andrew

Gladstone's Gareth Andrew is a twenty-four year reef line fishing veteran and was the first Reef Guardian Fisher in the pilot program.

Gareth and his wife Christine, along with their children Lily and Reeve, skipper Travis Millhouse and their dorymen, are proud of their fishing business and their efforts to fish sustainably. The family and crew are keen to work with the Great Barrier Reef Marine Park Authority to identify practices that help their business and the resource that it depends on.

Gareth believes that for the little effort involved in doing the right thing, the outcome for the Reef and the commercial fishing industry is great.

He recognises that for his business to be economically viable in the long term, it relies on a healthy marine environment and a resilient Great Barrier Reef.

REEF LINE COUNCIL

Supporting Reef Guardian Fishers – Reef Line pilot participants who are helping to ensure the economic and environmental sustainability of our industry.



MARINE AQUARIUM FISH AND CORAL COLLECTION

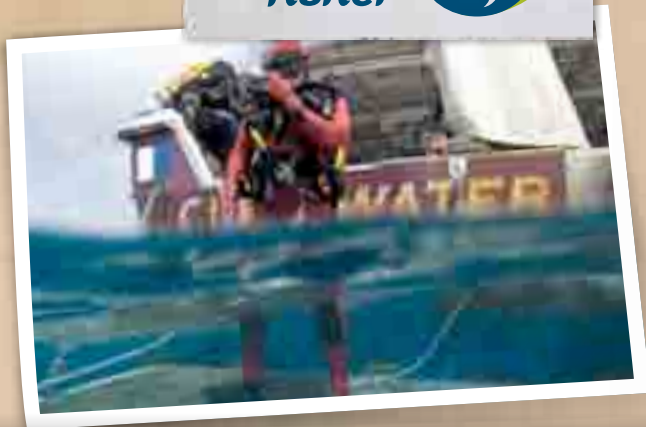
Marine Aquarium Fish and Coral Collection fisheries joined the Reef Guardian Fishers pilot program in April this year, showcasing the efforts they have already taken towards environmental stewardship of the Great Barrier Reef.

These fishers are leaders in the Marine Park; they were instrumental in establishing a representative body, Pro-vision Reef, which published a Stewardship Action Plan in 2009. This set up a uniform standard of collecting fish and coral for over 90% of these fisheries.

The Pro-Vision Reef Stewardship Action Plan addresses the impact of the fisheries' operations on the fish and coral populations and other users of the Marine Park. It notably includes a Response Plan for Coral Bleaching.

As part of the Reef Guardian Fishers pilot program, participants from these collection fisheries are also ensuring their vessel operations are safe, efficient and minimise the chance of any marine pollution.

During the pilot, the Great Barrier Reef Marine Park Authority will be working with Reef Guardian Fishers, Cairns Marine, and Pro-vision Reef throughout the review of the Stewardship Action Plan to align it with the Reef Guardian Fishers program when it is finalised.



Cairns Marine

Cairns Marine is owned and operated by the Squire family and they are the first Reef Guardian Fisher pilot participants in the Marine Aquarium Fish and Coral Collection fisheries. They are Australia's largest and leading supplier of marine life for display. They supply Australian retail outlets, international wholesalers and public aquaria.

Cairns Marine's Director, Lyle Squire Jnr, says their business decided to sign up to the Reef Guardian Fishers program because it complemented his industry's Stewardship Action Plan. It offered the community confidence in the way their industry operated.

"We are conscious that we work in a World Heritage Area and that there is an expectation from the community that we work hard to minimise our environmental footprint," he said.

"The Reef Guardian program strengthens our existing initiatives and further develops the collaborative arrangements we have with the Great Barrier Reef Marine Park Authority."

View Cairns Marine in action at www.youtube.com/user/cairnsmarine



Reef Aquarium sector organisation, Pro-vision Reef, welcomes the opportunity to participate in the Reef Guardian program. *"It's an initiative that will promote high standards of environmental performance and stewardship for users of the World Heritage Area."*

Lyle Squire Jnr
President, Pro-vision Reef



PROVISION REEF
Promoting Sustainable Reef Harvest



Many local residents assume their councils only deal with rates, roads and rubbish. But Reef Guardian Councils are doing much more than this in an effort to protect the Great Barrier Reef.

Almost 900,000 people live in the council areas between Cooktown and Bundaberg; an area of over 300,000km². This local council footprint covers a diverse range of rural, urban and industrial development. It is right on the doorstep of the Great Barrier Reef, which in turn places considerable pressure on the Reef's ecosystem.

Reef Guardian Councils are undertaking a range of positive measures to improve their environmental credentials. The aim is to help minimise the impact of their regions' activities on the Great Barrier Reef.

Water management, waste management, land management, and climate change actions are all in the sights of our councils. They are also helping community groups to look after the urban environments that in turn look after the Reef.

The thirteen councils signed up as Reef Guardians are:

- Bundaberg Shire Council
- Burdekin Shire Council
- Cairns Regional Council
- Cassowary Coast Shire Council
- Cook Shire Council
- Gladstone Regional Council
- Hinchinbrook Shire Council
- Isaac Regional Council
- Mackay Regional Council
- Rockhampton Regional Council
- Tablelands Regional Council
- Townsville City Council
- Whitsundays Regional Council

TESTIMONIAL

"The importance of the Great Barrier Reef to our coastal councils economically, socially and environmentally is evident in the already strong involvement they have established with the Great Barrier Reef Marine Park Authority's Reef Guardian Councils program.

The Local Government Association of Queensland wholeheartedly supports our council members in their participation with the Reef Guardian Councils program and in proactively managing their relationship with one of Queensland's greatest natural assets."

Cr Paul Bell
President, Local Government Association of Queensland



WASTE MANAGEMENT

Reef Guardian Councils are tackling the issue of litter and are helping to reduce waste entering the waters of the Great Barrier Reef.

Litter transported to the ocean by urban run-off can have an adverse impact on wildlife. Animals risk being entangled by rubbish, and if they consume this litter it may interfere with their feeding, cause injury or even death.

Polluted water has serious economic and social implications for the communities and industries that use and rely on the Reef, and for the health of animals and plants. Reef Guardian Councils are reducing litter and preventing waste from being transported to the Reef.

Cook Shire embraces recycling

Cook Shire Council has introduced communal recycling bins throughout the community. The bins are partitioned so that the waste is separated on site before being transported to the council's transfer stations for reuse or recycling. Cook residents have welcomed this initiative which has resulted in a reduction of around 30m³ of rubbish going to landfill.

Burdekin curbs waste

Burdekin Shire Council found that 50 per cent of waste going into suburban refuse bins was green waste. As a result, they reduced the size of these bins and implemented a recycling and green waste service on alternating weeks. The initiative has been successful with far less waste going to landfill.

Tablelands composts to improve soil

Tablelands Regional Council is currently undertaking a composting trial at Mareeba in conjunction with Trust Nature FNQ and Northern Gulf Resource Management Group. The aim of this project is to produce a soil health regeneration system and to demonstrate multiple economic, environmental and social benefits.

Whitsundays bans plastic bags

Whitsundays Regional Council has supported a voluntary ban on plastic bags. The council conducted a survey of the community in January and February this year to gauge the community's opinion on plastic bags. Director of Community and Environment, Mr Gavin Crawford, said it was interesting how various sections of the community viewed plastic bag issues and how they are used in the home. The project will involve setting up a committee to discuss what area the voluntary ban will target, its benefits and how to generate some positive social and environmental outcomes from the project.



WATER MANAGEMENT

What runs off our properties, or goes down our drains, can end up in our Great Barrier Reef. Poor water quality affects the biodiversity of reef systems.

Reef Guardian Councils are helping to improve the quality of water that runs off from urban centres along the Great Barrier Reef coastline.

Hinchinbrook supports Tyto Wetlands

A priority project for the Hinchinbrook Shire Council is the continued rehabilitation and revegetation of the Tyto waterways and wetlands. Tyto Wetlands is a 120 hectare wetland site located in close proximity to the township of Ingham. The facility has lagoons, interpretive signs, lookouts and hides, to encourage visitors to view the wildlife and wetlands. Extensive walking tracks throughout the wetlands allow visitors the unique opportunity to view wildlife up-close without disturbing their habitats.

Bundaberg supports local initiatives

Bundaberg Regional Council is working together with OceanWatch Australia and the Burnett Mary Regional Group to improve local waterways. This project began with the planting of more than 4000 trees at Saltwater Creek. They're also involved in supporting the "Cut the Glow" project along foreshores. The project involves darkening beaches at night to maximise turtle nesting success and to enable hatchlings to find their way to the water.

Isaac raises awareness of wetland protection

Isaac Regional Council raises awareness of wetland issues through hosting the St Lawrence Wetlands Discovery Weekend. Visitors can delve into the informative displays, walk around on a free wetland tour, check out the local plants or spot the abundant wildlife and birdlife. Isaac Regional Council Mayor Cedric Marshall said the St Lawrence Wetlands Discovery Weekend aims to raise awareness amongst local residents, visitors and tourists about the importance of maintaining a healthy wetlands ecosystem. A healthy wetlands ecosystem plays an important role in benefiting the local flora, fauna, nearby Great Barrier Reef and sea grass habitat of the local dugong sanctuary.



LAND MANAGEMENT

Increasing numbers of people are expected to move to regional Queensland in the coming years for lifestyle changes or employment. Reef Guardian Councils have an important role in planning for sustainable population growth, approving environmentally sound developments, and preparing the community for climate change impacts.



Mining and industrial activity is driving population growth throughout the Great Barrier Reef catchment at rates faster than the Australian average, especially along the coast.

Already, extensive areas of habitats that support the Great Barrier Reef ecosystem have been altered. Changes to the ecosystem because of climate change are also likely to have serious implications for dependant industries and communities. The potential for increased sea levels and weather variability (including an increase in cyclones) will also affect coastal development and planning.

Reef Guardian Councils are working towards addressing these issues.

Mackay commits to wildlife

Wildlife was the winner in 2010/11 with Mackay Regional Council allocating funding for up to 24 Land for Wildlife assessments. For land owners who participate in a conservation or nature refuge agreement with the Department of Environment and Resource Management, the council offers a rate rebate and 50 free Indigenous plants per year.

Cassowary Coast tree giveaway

Cassowary Coast Regional Council holds events each year where free trees are provided to residents. At each event, up to two native seedlings are provided to each resident who visits the Innisfail and Tully nurseries. Planting native trees provides food and shelter for native animals such as cassowaries, musky kangaroo rats, mahogany gliders, honeyeaters and lorikeets". In addition, native tree species require much less watering and care than exotic species. Nursery supervisor Judy Murphy said that planting native trees in your garden is a great way to contribute to your local environment as they survive cyclones well and greatly assist with biodiversity and landscape recovery. Four tree giveaways are held each year, offering different types of seedlings each time.

Townsville provides training

Over the past 12 months, Townsville City Council has refined and delivered comprehensive training in both erosion and sediment control planning and implementation. A recent shift in focus towards up-skilling on-ground staff, site supervisors and regulators has led to over 40 professionals completing the two day, council-delivered, Responsible Persons training. The training equips practitioners with dry-tropics specific tools and techniques essential for achieving stormwater improvement outcomes in their unique climate, rainfall and soil conditions. On-ground training is tailored for specific industry needs and is complemented by Suitably Qualified Persons training, which is refined for professionals preparing and assessing erosion and sediment control plans.



CLIMATE CHANGE

Reef Guardian Councils are stepping-up to help address climate change impacts on the Great Barrier Reef.

Future predictions of climate change dominate most aspects of the Reef's outlook.

Impacts from climate change have already been witnessed. All parts of the ecosystem are vulnerable to its increasing effects, with coral reef habitats the most vulnerable. Marine turtles and seabirds are also likely to be highly vulnerable to climate change effects.

Changes to the ecosystem because of climate change are likely to have serious implications for Reef-dependent industries and communities.

Initiatives by Reef Guardians along the catchment are vital to help build the resilience of the Marine Park. The stronger it is, the better it can withstand the challenges of a changing climate, and continue to provide social and economic benefits for generations to come.

Cairns tackles climate change

Cairns Regional Council has developed a five year action plan to reduce emissions by 50 per cent and to be carbon neutral by 2020.

As part of this initiative they have also implemented a Sustainability Scorecard which educates the council's staff about sustainability by encouraging them to consider sustainability in decision making and project planning.



Gladstone Regional Council

Gladstone Regional Council is contributing to the construction of a pipeline from their Tannum Sands and Boyne Island Waste Water Treatment Plants to Queensland Alumina Limited (QAL). QAL is one of the world's largest alumina refineries, producing some 3.95 million tonnes of smelter grade alumina per year. QAL will re-use the treated effluent from the Waste Water Treatment Plants in their refinery processes. Both Gladstone Regional Council and QAL are contributing funding toward the project. Construction of the pipeline is currently in progress and is anticipated to be completed in August 2011. This initiative will reduce discharge to the environment of treated waste water by approximately 1100kl/annum.



Rockhampton Council - Caring for our environment

Rockhampton Council is hoping to lead by example by reducing the impact its fleet of vehicles and machinery has on the environment. Council's Environment Committee Chair, Councillor Sandra O'Brien, said the council's Fleet Services Unit recycles as much of its used products as possible including oil, coolant and tyres and has replaced six-cylinder cars with fuel efficient, four-cylinder diesel models. "It's very important that as a council we lead by example in protecting and caring for our environment," Cr O'Brien said. "Our fleet consists of approximately 400 cars and utilities, 200 trucks, 150 construction items such as graders, earth movers and forklifts, 60 mowers or slashers and 200 trailers. With a fleet this size, it is very important to ensure we reduce our environmental footprint," she said.

reef
guardian
council





Across Queensland, students in Reef Guardian Schools are involved in a range of environmental activities, all in the name of looking after the Great Barrier Reef.

The Reef Guardian Schools program is now in its ninth year and it has supported fantastic initiatives to help the Great Barrier Reef achieve a more sustainable future. There's been many projects to improve catchment health through restoring and caring for creeks, rivers, beaches and wetlands and there's been a strong surge in the numbers of schools developing vegetable gardens and worm farms or

compost bins. Most schools are aiming to reduce their ecological footprint by using less electricity, less water and creating less waste at school and recycling some of that waste too!

Through this process, Reef Guardian Schools have often become their communities' leaders in sustainable living, sharing advice and ideas with their parents and friends and often with the whole community as well. Local councils, businesses and environmental agencies have recognised the outstanding contribution made by these students and schools and many of them are multiple award winners.

Schools and their students are well aware of the current issues facing the Great Barrier Reef. For them, becoming involved in an environmental program such as Reef Guardian Schools involves a sense of participation in the "big picture" and the understanding that they really can make a positive difference. By helping to make their community a better place, students gain important skills and awareness from an environmental perspective, as well as from an educational perspective. This helps to create socially responsible, young citizens.



TESTIMONIAL

"It is important for modern educational institutions to provide opportunities for students and teachers to participate in hands-on action in, and for, their local ecosystems. Reef Guardian Schools and Catholic Education work together to ensure that sustainability is a focus in the classroom, as well as linking the school to its local community to secure the future of our local and global environments".

Dr Cathy Day
Director, Townsville Catholic Education Office





Schools are assisted in their Reef Guardian journey with educational resources, including the annual Reef Beat series. This set of posters and matching activities booklets helps schools to focus on a theme for the year. In 2011, it is based on the Great Barrier Reef Marine Park Authority's theme of working in partnership with Reef communities to achieve positive environmental outcomes: "Working together today for a healthier reef tomorrow".

Schools can be recognised for their outstanding Reef Guardian achievements through an annual awards program. This involves giving ten schools a financial reward to assist them in furthering their environmental success. Each year, schools can also apply for one of twenty small funding grants to initiate new projects.

Investing in future generations of decision-makers allows for a more positive outlook for our Great Barrier Reef. Young people are getting involved in looking after their local patch and many of them are asking; "What can I do in my local community to support a more sustainable future?"

TESTIMONIAL

"Reef Guardian Schools and Independent Schools Queensland recognise the importance of preparing students to be environmentally aware, active citizens. By working together to achieve sustainability outcomes, a greater educational, environmental and economic benefit can be reached for both the school and its surrounding community."

David Robertson
Executive Director

LOOK AT WHAT IS HAPPENING IN OUR SCHOOLS!



Gordonvale State School

Gordonvale State School has developed a multi award winning Excelsior Program that now has expanded to include Aloomba State School and Gordonvale State High School. Excelsior students have the opportunity to participate in developing the school's sustainability program.

Gordonvale State School has created a great community-based approach to their environmental sustainability. It has fostered partnerships with local environmental organisations including Mulgrave Landcare and Catchment Group and local businesses.

The whole school is involved in "reduce, recycle and rethink" programs as well as water conservation and power saving initiatives. They also help to look after local habitats and ecosystems.

Thuringowa State High School

The Thuringowa State High School Eco-Warriors group has been going since 2008, with a focus on their restoration site, Loam Island. The group has participated in native tree planting, weeding and water quality monitoring on the site.

The school has developed a school-based nursery in conjunction with Conservation Volunteers and with funding through the National Australia Bank.

Other initiatives include a litter campaign called "Feed the Bins", a recycling program and a worm farm.

The school is aiming to reduce its overall ecological footprint, and has been including energy auditing and energy saving into this process.



Feluga State School

The Feluga State School's project at Bumpbucal Creek has been going since late 2005. The aim is to help improve the water quality of the creek. Priority projects include water testing and tree planting on the riverbanks.

The school has also been involved in worm farming and plastic reduction initiatives. They've been working with other local schools to produce great results for the creeks and rivers in the Tully region.



Reef Guardian Schools provides opportunities for Queensland school students to participate in a variety of environmental action-based programs and projects both in their classroom and in local ecosystems. The Department of Environment and Resource Management is working with Reef Guardians to provide educational and environmental opportunities for teachers and students to become the leaders in sustainability in their school and community.





Mercy College Mackay

Mercy College students and teachers have been getting involved in marine conservation and ecology education. The school has an active environmental club where students have created shorebird protection posters for Pioneer Landcare Catchment. They have also planted native trees on school grounds and created a bird and butterfly garden.

The students have also built a 3D model of their catchment area to highlight all the factors that can impact on the quality of the water in the region. It is showcased in the school foyer.

Miriam Vale State School

The Miriam Vale State School "Brain Train" class has been promoting positive environmental outcomes for themselves, other students and the community. Their main focus has been the local wetland area, where they have organised a community based "Wetland Weeding Day".

The school has developed a wetland mural to inform and educate students about the importance of wetlands. It also has energy monitors to reduce power consumption and to encourage organic waste recycling and water-wise activities. Their environment efforts are supported through strong community partnerships.



Yeppoon State School

Yeppoon State School has labeled coloured buckets and placed them in all of their classrooms to encourage classes to separate recyclable waste from other waste. They also provide small wheelie bins for paper waste.

The school's "Waste Warrior" team monitors the waste collection regularly, and gives certificates to the classes that separate their waste the best. The school has participated in "Green Up Clean Up" day and "Clean Up Australia" day to reduce local litter issues.

The school also has a Junior Landcare group, which manages organic waste in a tumbling compost bin and uses the compost for the school gardens. This group has a green house and is responsible for growing produce and greening the school grounds.



Mother of Good Counsel School

The Mother of Good Counsel School has seen reductions in its monthly kWh electricity usage, as part of their energy saving programs. Students get involved by signing pledges to reduce power.

The school also has a "Wear Blue - Tell Two" blue clothes day to share environmental messages on World Oceans Day.





Burdekin Christian College

The Burdekin Christian College is the hub for the Burdekin Youth Environment Council, and provides guidance and mentorship to other schools in its region. It participates in the "Adopt a Road" initiative, includes a Reef Guardian float in the Burdekin Water Festival, and showcases their annual sustainability theme at their community sustainability night.

The school has ongoing water and power saving programs, a large vegetable garden and worm farm and is also involved in the council's Low Carbon Diet program. The school encourages local, state and federal members of government to participate in their environmental activities, and has developed long standing partnerships with local environmental agencies.

Trinity Anglican School, White Rock, Cairns

Trinity Anglican School, White Rock, in Cairns has been involved in the restoration of Sawpit Gully - a wet season watercourse which runs through the school grounds. The school recognises that this gully feeds in to Trinity Inlet, and then into the Great Barrier Reef, and has decided to return it to a wildlife corridor.

The school has been stabilising and caring for the site to not only create aesthetic improvements, but to provide an educational area for students to learn about the importance of rainforest habitats, waterways, biodiversity and its interaction with the Great Barrier Reef.



Ayr East State School

Ayr State School is involved in a carbon sequestration project in partnership with the Burdekin Shire Council and the local Landcare association. Students regularly plant native trees at the racecourse to reduce their ecological footprint.

The school has planted trees as part of the National Tree Day fundraising event. They collected \$800 which will go to the purchase of a mini rotary hoe to help with future garden projects at the school.

The students have also taken ownership of a vegetable garden and during the year have harvested the produce and given this to the staff and parents for the price of a small donation.



FUTURE LEADERS ECO CHALLENGES

Getting out into the open air and getting your hands dirty by working on environmental projects is definitely one aspect of the Reef Guardian Schools program which appeals to students of all ages. This is why Reef Guardians look forward to the annual Future Leaders Eco Challenges events.

During term three of each school year, outdoor environmental education days are run in regional centres across the Great Barrier Reef catchment area. In 2010, Reef Guardian Schools hosted 17 of these days in wetlands and coastal ecosystems, with a theme of "Sustaining Biodiversity".

Students took part in many different activities, including water quality testing, native tree planting, weed identification, water bug investigations, bird watching, fish trapping and insect collection.

Students and teachers learnt skills and gained scientific knowledge that will assist in developing future catchment-based projects in their local areas. Part of the investigations focused on looking at the role wetlands play in improving the quality of the water that ends up in the Great Barrier Reef, as well as the positive and negative influences on local wetlands, and ways to improve the health of these ecosystems.



The Future Leaders Eco Challenges would not be possible without the assistance of regional environmental agencies including local councils, catchment groups, universities, natural resource management groups, local Landcare groups, Earth Smart Schools and Science Sparks, local business and industry as well as local Reef Guardian Schools. The 2010 events included 91 partnerships and involved more than 900 participants including approximately 600 student leaders, 130 teachers and 50 pre-service teachers.

By working in partnership with regional communities, we are improving catchment health and water quality and this helps to improve the resilience of the Great Barrier Reef. By working together today, Reef Guardian School students can look forward to a healthier Reef tomorrow.

reef
guardian
school




Looking for a great Reef tourism experience?



Look for these logos to find a high standard Great Barrier Reef tourism operator

If you want a high standard Reef tourism experience, with a tourism operator who's committed to protecting and presenting the Reef, and working in partnership with the Great Barrier Reef Marine Park Authority (GBRMPA) and their local community, then look for the logos above when you're choosing your next Reef holiday adventure.

Reef tourism operators with these logos are recognised as high standard by the GBRMPA because they have been independently assessed under Ecotourism Australia's ECO Certification Program as operating at the two highest levels of the Program which are: **Ecotourism** and **Advanced Ecotourism**.

There are 50 high standard reef tourism operators, which carry approximately 60 per cent of all tourists who visit the Reef, profiled on the GBRMPA website. Some of these operators have been part of the High Standard Tourism Program since 2004.

To select your preferred high standard operators, visit www.gbrmpa.gov.au/highstandards.



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**Great Barrier Reef
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