

ACTIVITIES SPOTLIGHT 2015

Healthy Rivers to Reef Partnership

The Mackay-Whitsunday Healthy Rivers to Reef Partnership brings together Partnership representatives to focus on the health of the five regional basins and adjacent coastal marine areas of the Great Barrier Reef. The Partnership supports the development of an annual Mackay-Whitsunday waterway health report card, based on rigorous independent science and straightforward public reporting, providing the community with the information needed to make informed decisions around waterway health and management.

Partners recognise that more can be achieved together than alone and acknowledge the value of collaboration in realising outcomes beyond those that could be attained by any single agency or organisation. Partners are committed to sharing regional knowledge, program actions and monitoring and research information to assist in a broader understanding of the health of basins, rivers and Reef.

The Partnership is committed to ensuring the nesting and alignment of the report card with other catchment and Reef monitoring and management activities. These include the Reef 2050 Long-Term Sustainability Plan, the Great Barrier Reef Marine Park Authority (GBRMPA) Reef Outlook Report and associated integrated monitoring and other reporting programs such as Paddock to Reef.

This spotlight contains examples of work being undertaken in the Mackay-Whitsunday region and is not exhaustive. For more details on our partners and their activities, visit www.healthyriverstoreef.org.au



On the ground: Regional Case Studies

GROSS POLLUTANT TRAPS AND CLEAN-UP

Healthy Rivers to Reef Partners have been involved in various projects across the region to help reduce pollutants in our waterways and reaching the Reef.

Whitsunday Regional Council in partnership with Reef Catchments have installed three **gross pollutant traps** within the Cannonvale Botanic Gardens precinct. The newly installed traps have been specifically located in catchments with urban and commercial uses to minimise the pollutants contained in runoff from entering Pioneer Bay and the Great Barrier Reef. The traps are designed to reduce gross pollutants by 93%, sediment by 40% and nutrients by up to 30%.

Many Healthy Rivers to Reef Partners support Eco Barge Clean Seas who work to remove litter from land and marine areas across the Whitsundays and Mackay. In 2014, from 40 trips, nearly 13 tonnes of mostly plastic rubbish was removed from the sea around the Whitsunday Islands and coastlines. In total between 2012 - 2015 and in just six clean-up events, Eco Barge has collected over 20 tonnes of litter from beaches around Mackay and Sarina.

CATCHMENT REHABILITATION

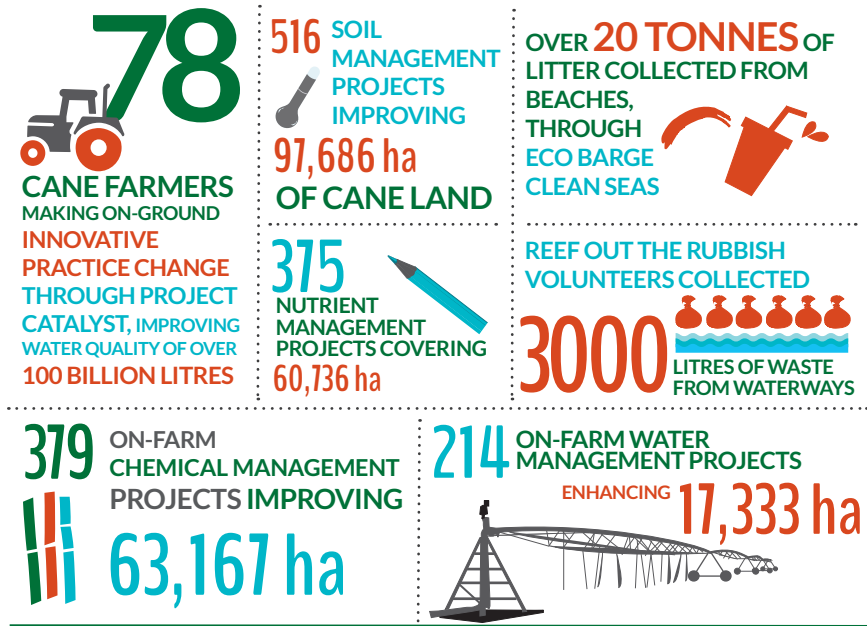
A number of projects have been undertaken across the catchments to rehabilitate our waterways, improve landscape quality (for example, by building riparian vegetation) and to enhance water quality in the catchments and to the Reef.

Little McCreadys Creek Rehabilitation Project is one of five priority implementation projects under Mackay Regional Councils voluntary mechanism for stormwater quality management. Little McCreadys Creek is a 720 metre long, degraded and straightened creek channel that has lost nearly all of its habitat value with the removal of riparian/in-stream habitat as well as the presence of invasive weeds. The project aims to re-establish riparian vegetation and ecosystem service values including fish habitat and channel stability. This will help to improve and treat water quality runoff from built up urban areas and improve the quality of water flowing into estuarine habitats and the Great Barrier Reef.

Galbraith Creek Riparian Revegetation Project is led by Whitsunday Catchment Landcare along two creeks that align with Galbraith Park in Cannonvale. The objectives for this project are to reduce erosion, improve water quality, provide habitat for native wildlife and establish a vegetative corridor across the Cannon Valley to link the National Park areas. This work is undertaken each year by community volunteers.

Reef Catchments has been working with landholders along the **O'Connell River** to better understand the location, cause and extent of channel erosion. LiDar technology was used to develop a digital elevation model of difference, assessing sediment loss over a four year period. Combined with an analysis of stream power and the use of hydraulic modelling, Reef Catchments has identified and prioritised on-ground actions that are now being implemented to reduce the supply of sediment and nutrients to the Great Barrier Reef.

www.healthyriverstoreef.org.au



What we are doing together - moving forward

Partners are committed to making water health improvements and driving action based on report outcomes across our region.

Mackay Regional Stormwater and Urban Water Quality Monitoring Program is a joint initiative between Reef Catchments, North Queensland Bulk Ports Corporation, Mackay Regional Council and Catchment Solutions to assess water quality across a range of urban environments in the Mackay Region. The program will collect water quality information across 17 distinct urban areas and assess the performance of water sensitive urban design, urban and industrial land practices and stormwater catchments. The program will use the monitoring information to develop and benchmark an ABCD framework for stormwater and urban water quality, and provide an ongoing tool to develop and track water quality improvement in the Mackay area.

eReefs is a partnership between the Great Barrier Reef Foundation (GBRF) the Queensland and Australian Governments, BHP Billiton Mitsubishi Alliance (BMA), BoM, CSIRO and AIMS. It provides real time visualisation tools and links to catchment and marine modelling. eReefs aims to improve the understanding of reef health and the on-ground actions needed to achieve improved health. A relocatable coastal model (RECOM) is being developed encompassing the Airlie Beach area.

What you can do

Best waterway health outcomes mean all hands working together. As a proactive member of the community, you play an important part in helping secure long term water quality improvements.

Take part in activities and events being offered in your region.

Local organisations like Reef Catchments, Eco Barge, Landcare and GBRMPA offer a wide range of activities that the community can get involved with, including Coastcare and revegetation events; island, beach and marine debris clean-up; pest management; school and education programs and more.

Landholders and farmers have a range of funding options available to take part in larger scale projects focused on improving water quality and runoff through more effective land and farm management. For

WHY DEVELOP A REPORT CARD?

The condition of our waterways and the Great Barrier Reef has been declining in recent decades, influenced by a wide range of short and long term pressures. Governments, industries and communities are committed to working together to address these pressures and improve the future health of our region's valuable water resources. Waterway health reporting takes a whole-of-catchment approach, focused on connectivity between basins, rivers and estuaries, and the Reef.

About our approach

The Partnership is utilising best available science, with access to leading data that collectively represents over \$4 million of partner investment in waterway and marine monitoring programs.

North Queensland Bulk Ports are providing ambient water quality monitoring and seagrass monitoring data collected by James Cook University scientists. The Australian Institute of Marine Science has contributed data from the Long-term Coral Monitoring Program, with the Great Barrier Reef Marine Park Authority (GBRMPA) providing data from the Marine Monitoring Program.

The Partnership is also using Paddock to Reef monitoring data, alongside the Queensland Government's estuary monitoring program data.

For the first time the Partnership has provided a collaborative approach to data analysis, providing insight into whole-of-catchment waterway health, from basin to estuary and out to the marine.

The RECOM provides finer scale information (e.g. down to 200 m), and is designed to provide more information on water quality changes within estuaries or in particular bays. The RECOM is run in near real-time mode, and will provide an archive of water quality information from 2016 onwards.

Whitsunday Regional Council is developing a new **stormwater management framework** for the region's urban catchments. The framework will look to integrate urban planning with the management of the region's waterways and wetlands to minimise the impact from urban development on the Great Barrier Reef. The framework will include strategies and activities for achieving the local government objectives of the Reef 2050 Long-Term Sustainability Plan and State Planning Policy within the Whitsundays, and informing the local community about the framework and achievement of its objectives; as well as measures to monitor the implementation of the framework and evaluate its effectiveness. For further information contact the Department of Planning and Community in Whitsunday Regional Council.

more information on activities and funding available, please contact us.

Recycle and reuse items where you can, rather than opting for plastics (for example, swap plastic shopping bags and takeaway coffee cups for environmentally friendly substitutes).

Keep an eye out and be aware of the 'top ten' items most likely to end up in our waterways and marine environment: cigarettes; caps and lids; plastic bottles; plastic bags; food wrappers/containers; cups, plates, forks and knives; glass bottles; straws/stirrers; aluminium cans and paper bags.

Look out for the environment at work. Ensure your work place is safe, both occupationally and environmentally.