

## Highlights

The Reef Guardian Council stewardship program recognises the good environmental work councils and communities are achieving to help the Great Barrier Reef. Each year the council reviews its activities and produces this report to highlight the positive outcomes and its commitment to a better future for the Great Barrier Reef.

### Marine Debris Art Project

With a grant from GBRMPA, local artist David Day created several original art pieces from marine debris collected from the local area, to highlight the issue of marine debris in our environment, and provide a starting point to create interest and begin discussion on the issue of marine debris and how it can affect the Great Barrier Reef and marine life. A key piece is a marine turtle made from thongs and other materials found on local beaches. The underside of the turtle is made from a plastic crate, through which you can view marine debris such as plastic and rope. This illustrates the problems marine turtles can have when they ingest plastic and other materials. The pieces are use in displays and Coastcare events to highlight the issue of marine debris .



*Local Artist David Day with his artwork made from marine debris*

### Lagoons Creek Rejuvenation

The \$379,000 project, co-funded by Mackay Regional Council, Reef Catchments and the Department of Transport and Main Roads, included re-establishing aquatic and terrestrial connectivity between the Pioneer River and the Lagoons Creek wetland system, leading to improved water quality, increased biodiversity and aesthetic enhancements. This project has turned a heavily modified and degraded stretch of Lagoons Creek into a large wetland area, with numerous rock ramp fish ways and extensive revegetation.



*The newly completed Lagoons Creek wetland system will provide habitat for wildlife and improve amenity value*

## Little McCreadys Creek Project

Council partnered with Reef Catchments Limited to improve the quality of water entering the Great Barrier Reef lagoon from coastal urban development centres. The Little McCreadys Creek rehabilitation project occupies about 4.5 hectares of council land on a tributary of the main McCreadys Creek system.

The Little McCreadys Creek project is one of Council's five priority implementation projects forming part of the voluntary mechanism for stormwater quality management, which will have many future benefits including fish passage, biodiversity, water quality, amenity, and aesthetics, cooling and reinstating natural systems.

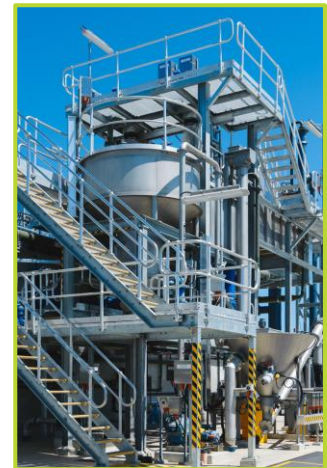


*As well as improving the amenity of the area, water quality and habitat improvements have been made at Little McCreadys Creek.*

## Water Recycling Facility at Sarina

The Sarina Water Recycling Facility is a multi million dollar state-of-the-art facility constructed to meet stringent conditions, given the proximity of the plant to the Great Barrier Reef Marine Park.

The new facility replaced an existing 40-year-old sewerage treatment plant, which operated using outdated technology and had no capacity to meet future demand. The sophisticated system has reduced effluent disposal, which aids in the protection of the Great Barrier Reef and contributes recycled water for irrigation purposes to the local golf course.



*Sarina now has a state-of-the-art water recycling facility.*

## Materials Recovery Facility

After 10 years, council's Materials Recovery Facility had reached the end of its working life. When the operations contract expired, council looked at innovative ways to achieve greater efficiency in recovering all recyclable material. Through a Design Build Operate contract with Recycling Design & Technologies, council achieved a modern, highly efficient plant upgrade which includes an Australian-first optical sorting system, which has increased the region's overall recycling rate by 38%. In addition to the MRF upgrade, council also introduced a glass crushing plant, which diverted 2744 tonnes of glass product from landfill in 2015-16. The recycled crushed glass is being used for bedding material under concrete, backfilling and subsoil drainage which is a significant cost-saving to ratepayers.



*Recycling rates have increased by more than a third following MRF upgrades*

*Working together today for a healthier Reef tomorrow*