



SUMMARY of Reef Guardian Schools Future Leaders Eco Challenge

Mackay Botanic Gardens, 28 March 2019

Thank you to all who attended the Mackay Future Leaders Eco Challenge (FLEC) at Mackay Botanic Gardens and made the day such a great success. These events are not possible without the support of fantastic teachers, schools and dedicated partners. We would like to especially acknowledge the Mackay Regional Botanic Gardens for their support of the Reef Guardians program and allowing the event to take place at the Gardens. Please find below a brief summary of the event.

Reef Guardian schools represented

58 students and seven teachers from our Reef Guardian schools in the Mackay region attended:

- Beaconsfield State School
- Mackay Central State School
- St Francis Xavier Catholic Primary
- St Joseph's Catholic Primary
- Mackay State High School
- Seaforth State School

Partnership support

A huge thank you to all our Reef Guardian partners for delivering informative and interesting activities:

- Catchment Solutions Trent Power
- Central Queensland Soil Health Systems –
 Simon Mattsson
- Watershed Land Art Project Kellie Galletly and Lucas Ilhein
- Reef Catchments Cass Hayward
- Yuibera Descendant Philip Kemp

Activity summary

Connections to Land

Philip Kemp, Yuibera Descendant for the Mackay region officially opened the FLEC with a Welcome to Country. He then spoke to students about his cultural background and highlighting the past way of life, sustainability, local foods, hunting and traditional Aboriginal plant uses. Unfortunately due to the wet weather, students were confirmed to stay under cover instead of taking a walk with Philip and seeing some of the traditional plants of the Mackay region.



Fish ways and Habitats

Reef Guardians joined Trent Power from Catchment Solutions to explore the built fish way and wetland lagoon along Lagoon's Creek. Trent explained why fish ways are vital for certain species of fish to complete their life cycle and highlighted how wetlands provide a safe haven for fish to grow. Wetland areas also catch sediment runoff during heavy rain events and can reduce the amount flowing down rivers and into the Great Barrier Reef lagoon.



Soil Health Activity

Local cane farmer, Simon Mattsson is taking part in "The Watershed Land Art Project" which is helping people who live in town understand things that cane farmers are doing to improve soils in the Pioneer Valley and help the Reef.

Simon got the students thinking about how one teaspoon of healthy soil can hold more tiny organisms than there are people living in Mackay. He went on to explain that some of these organisms are visible to the eye - earthworms, beetles and ants – while others are impossible to discern from other elements in the soil - bacteria, algae, fungi and nematodes. This project demonstrates principles of **Regenerative Agriculture** and by applying these principals farmers can improve plant, soil and ecosystem health, reduce the need for synthetic inputs and fertilizers, reduce soil and fertilizer run-off into local waterways and the Great Barrier Reef and increase soil carbon sequestration.



Shaping our Watershed

Kellie Galletly who is also involved in "The Watershed Land Art Project", facilitated an activity around the problems with erosion, giving students a better understanding of the Great Barrier Reef Catchment, explaining how water flows through the catchment and eventually ends up flowing into the Great Barrier Reef. Kellie encouraged students to plan, create and manage solutions of their own through different "hands on" scenarios.



Reducing the effects of land base runoff

Lucas Ilhein, Artist (University of Wollongong) and facilitator of "The Watershed Land Art Project" got students working in small groups and thinking about how different groups within the community can contribute and reduce the amount of land base runoff

entering our waterways and ending up on the Great Barrier Reef. Students worked through a series of scenarios, looking for ways to minimise their impacts as either people in the community, councils, farmers or industry. Students had to think "outside the square" and were quite creative with their answers.



Source Reduction Workshop

Prior to attending the FLEC students were asked to complete a litter audit at their school, compiling data and itemising their top three finds. From there, Cass Hayward from Reef Catchments, led students through an activity, looking for strategies in source reduction. Students looked to reduce items such as glad wrap, straws and one-use plastics and came up with alternatives to use instead of these items. These included bees wax wraps, re-usable water bottles and refusing to use straws where they can. Students were keen to share ideas and influence their friends and family to start making small changes in their day-to-day lives to help reduce the impacts of marine debris.



All of these activities —although on the land — help build health and resilience for our Great Barrier Reef.
Together we can secure the future of the Great Barrier Reef, but we need to try harder, do more and act now.
Students and teachers are encouraged to share their ideas for action with their school, home and community.

