Mackay Whitsunday Paddock to Reef integrated modelling, monitoring and reporting program

Project summary

Proponent: Reef Catchments (Mackay Whitsunday Isaac) Ltd

Value: $750,000

Project duration: 1 October 2013 – 30 June 2016

Project description

Through this project, Reef Catchments will achieve two goals. First, it will collect, collate and provide quality regional data to the Paddock to Reef Program (P2R), which will also be used locally to promote the adoption of best management practices amongst the agricultural industry in the region. Secondly, Reef Catchments will coordinate the P2R activities across five Great Barrier Reef (GBR) regions and ensure that they receive benefit from the program (Wet Tropics, Burdekin, Fitzroy, Burnett Mary, and Mackay Whitsunday).

The Queensland Government committed to the continuation of the Reef Plan P2R program and the more timely delivery of annual report cards. Regional Natural Resource Management bodies are the lead and support organisations for a range of deliverables in the Reef Plan 2013 P2R program. This project contributes to the delivery of Reef Plan actions (7 and 8) and deliverables through a coordinated P2R program.

The activities conducted will improve water quality in the Great Barrier Reef lagoon as well as in the waterways within the Mackay Whitsunday region. In addition to being a valuable contribution to Reef Plan, the data collected for P2R will also increase Reef Catchments’ knowledge to assist in prioritising investments and targeting on-ground actions. This data will also form the foundation for developing decision support tools for growers that can inspire them to shift practices, as well as providing fresh information for extension products.

The project will be conducted by Reef Catchments, but not in isolation. Reef Catchments will collaborate closely with P2R program leaders to ensure information is suitable reef-wide while still being useful for regional goals. Reef Catchments will also collaborate closely with other regional Natural Resource Management bodies as part of the GBR-wide coordination activities. Clarification of tasks, relaying information to and from the program, and troubleshooting will involve regular contact with coordinators, operation managers, technical staff and CEOs.

Data will be procured and reviewed in collaboration with productivity boards, mills, agronomists, the Queensland Department of Agriculture and Fisheries, cane growers and graziers. Reef Catchments has existing partnerships with these organisations and has established technical
working groups that meet regularly to provide feedback on the accuracy of data. These groups will also be a hub for disseminating information back to the farmers.

The five main activities will be to:

1. provide on-ground technical advice to the P2R program on improving the regional sugarcane management practice benchmarks and seek the information required
2. collaborate with the P2R MPA Program leader and seek and define the best strategy for obtaining annual fertiliser and pesticide use data and then report this annually
3. coordinate the delivery of the P2R Program across regions and link the outputs of each of the subprograms and the overall program to the regional bodies
4. undertake on-ground assessment and ground-truthing of the status of priority wetlands and in collaboration with the P2R wetlands program leader, select focus areas, conduct field work, and report data
5. create a tool to predict water quality improvements derived from specific management practice improvements in sugarcane and use it regionally to promote an increase in adoption of best management practices.

Project outcomes

Long-term outcomes (5-10 years)

- The overall quality of water reaching the GBR is improved.
- The quality and health of waterways, wetlands and the GBR lagoon is improved and protected.
- Sediment, nutrient and chemical loads at or near the point of intervention are reduced through improved farm management.

Intermediate outcomes (3-5 years)

- 20% of Mackay Whitsunday wetlands are assessed for health with findings shared across programs to prioritise restoration and protection activities.
- Improved understanding of wetland condition and role in water quality for the region.
- Detailed management practice data collected for 80% of Mackay Whitsunday sugarcane farms and 70% of grazing properties and modelled to learn water quality improvements.
- All funded activities are supported by water quality research and trials.
- Management practice and water quality information is delivered to 70% of Mackay Whitsunday sugarcane growers and graziers.
- Participation by all major industry bodies and relevant service providers in program activities.
- The pollutant loads are successfully quantified (through P2R) and there is enough information to know how best to act.
- There is a coordinated approach to solve GBR water quality issues (and to measure progress) across GBR catchments.

Further information

For further information on the ‘Mackay Whitsunday Paddock to Reef integrated modelling, monitoring and reporting program’ project, please contact Reef Catchments (Mackay Whitsunday Isaac) Ltd.

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