

# GROWER-LED WATER QUALITY MONITORING IN SANDY CREEK

## WHY?

Concerned sugarcane growers around Sandy Creek, south-west of Mackay, initiated water quality monitoring after some pesticide concentrations were found to be higher than the concentration of national pesticide guideline values. These concentrations were first detected during monitoring programs of specific river basins, which began as part of the Reef Water Quality Protection Plan (Reef Plan) and were recently updated as part of the Reef 2050 Water Quality Improvement Plan.

The local Sandy Creek growers approached the leading industry representative bodies and developed a project to identify sources of pesticides entering Sandy Creek to:

- ▶ Manage off-farm losses.
- ▶ Increase the area of sugarcane production systems that implements best management practices.
- ▶ Create awareness with local growers to develop stewardship and ownership of the health of Sandy Creek.
- ▶ Reduce concentrations of pesticides and nutrients to improve water quality in local waterways that flow to the Great Barrier Reef.

## MACKAY-WHITSUNDAY HEALTHY RIVERS TO REEF REPORT CARD

The Mackay-Whitsunday Healthy Rivers to Reef annual report card includes the results of water quality monitoring programs throughout the Region, including the Plane Creek basin and Sandy Creek estuary reporting zones. Head to our interactive website to check out the results:

[healthyriverstoreef.org.au/report-card-results](http://healthyriverstoreef.org.au/report-card-results)



## HOW?

A group of 15 local growers who wanted to see firsthand the concentrations of pesticides and nutrients in their local creeks, initiated the project in 2015. In association with scientists from the Queensland Department of Science, Information Technology and Innovation (DSITI), the growers established multiple water quality monitoring sites along Sandy Creek. Water quality sampling targeted the early rainfall events of the season (between November and February), when substantial quantities of pesticides and fertilisers can potentially run off from cropping areas into local waterways.

Growers have developed a better understanding of the local water quality issues through their participation in the project, and are keen to try alternative practices that can maximise efficacy of farm inputs while minimising losses off the farm. These growers are not only changing what products they use and how they use them, they have also become advocates in the industry for improved pesticide use practices.

Water quality monitoring data obtained by 15 growers has led to a better understanding of how practice change can improve water quality across the growers' combined 3000 hectares of sugarcane land.





The trusted relationship between MAPS officers and their Sandy Creek growers means open discussions, a willingness to try new practices and positive change, resulting in reduced off-farm losses and ultimately improved water quality in the local creeks.

## FOLLOW-UP

In 2016-2017 Mackay Area Productivity Services (MAPS) officers visited 120 growers whose farms ultimately drain into Sandy Creek. The aim of this engagement is to meaningfully discuss farm practices focusing on diuron, imidacloprid and nitrogen fertiliser use.

Also in 2016-2017 Farmacist conducted farm demonstration trials, where the growers were shown how adjusting their practices will likely achieve cost-effective farming solutions while minimising impact on water quality.

## LOOKING AHEAD

The Sandy Creek project is well known across Mackay and the rest of the Central Queensland district. It has credence and momentum because growers were “hands-on” from the start and were integrated into the process of discovery and solution finding.

This project will continue for the next 2 years and the success of the project is attributed to the collaborative effort between the sugarcane industry, local sugarcane growers and the Queensland Government.

## PROJECT PARTNERS

The Sandy Creek project was endorsed by industry bodies and the larger Sugar Regional Working Group, whose membership includes CANEGROWERS Proserpine, CANEGROWERS Mackay (Mackay and Plane Creek), Queensland Department of Agriculture and Fisheries, Reef Catchments, Sugar Research Australia and Mackay Area Productivity Services. Collectively, members of the sugarcane industry and DSITI requested and received funding from the Queensland Department of Environment and Heritage Protection for this project. The project is being delivered by MAPS, Farmacist, Griffith University and the Queensland Government.

