

## 2014 water quality IMPROVEMENT PLAN

# Murray Creek

## Management Area Progress Report

### Summary of progress

Murray Creek flows from headwaters in the Clarke Range east through the coastal plain, entering the Great Barrier Reef lagoon at St Helens Bay and the Newry Island region Dugong Protection Area. The Murray Creek estuary and receiving marine waters support intertidal flats and seagrass beds. Upper areas of the catchment have good quality forest areas, while lowland areas have been developed extensively with almost 50% of the catchment supporting grazing production and 25% utilised for cane production. The remaining land use is National Park and wetland with some scattered peri-urban settlements.

In 2007 the Murray Creek freshwater stream condition was rated as moderate relative to other Mackay Whitsunday catchment areas, while the estuary was rated as being in relatively higher ecological condition. Between 2007 and 2013 there have been excellent efforts to improve the quality of water leaving agricultural production areas. These improved management practice initiatives provide a solid foundation from which to expand management practice improvement in the grazing enterprises of the Murray Creek catchment area.



*"Reef Rescue has given us opportunities to broaden our knowledge base around our farm management that we incorporate in our farm management."*

Jane and Dale Gronow, Murray Creek cane farmers

### Ecosystem implementation highlights

- Riparian management has been improved along 3 km of Murray Creek by graziers who have installed riparian fencing and off-stream watering points
- Four critical barriers to fish migration have been removed using a rock ramp fishway, baffle fishway and concrete cone fishway

### Agriculture implementation highlights

- More than 50 farmers have improved management of soil, nutrients and herbicides on almost 6000 ha of grazing and intensive cropping land in the catchment with Reef Rescue support
- Artificial wetlands and sediment detention basins constructed on two cane properties to manage the quality of water leaving the farms

### Future priorities

Grazing and sugar cane management practices that reduce nitrogen, phosphorus and pesticide loads are the highest priority for continued improvement of water quality, with marine risk exposure from pesticide and nutrient loads rated as high in the near shore environments to Murray Creek estuary.

All system repair actions that improve fish habitat and species diversity and abundance are critical to improve the ecological health rating for the Murray Creek catchment area. Riparian vegetation restoration and connectivity is also a high priority to support fish communities as well as stabilise stream bed and banks for improved water quality and to reduce the marine risk exposure.



Allan McLean's shielded spray trial on his Jolimant Creek cane farm, a key tributary of Murray Creek. Shielded spray units improve on-farm nutrient and chemical management as well as efficiencies and accuracy.