



WATER QUALITY IMPROVEMENT PLAN 2014 - 2021

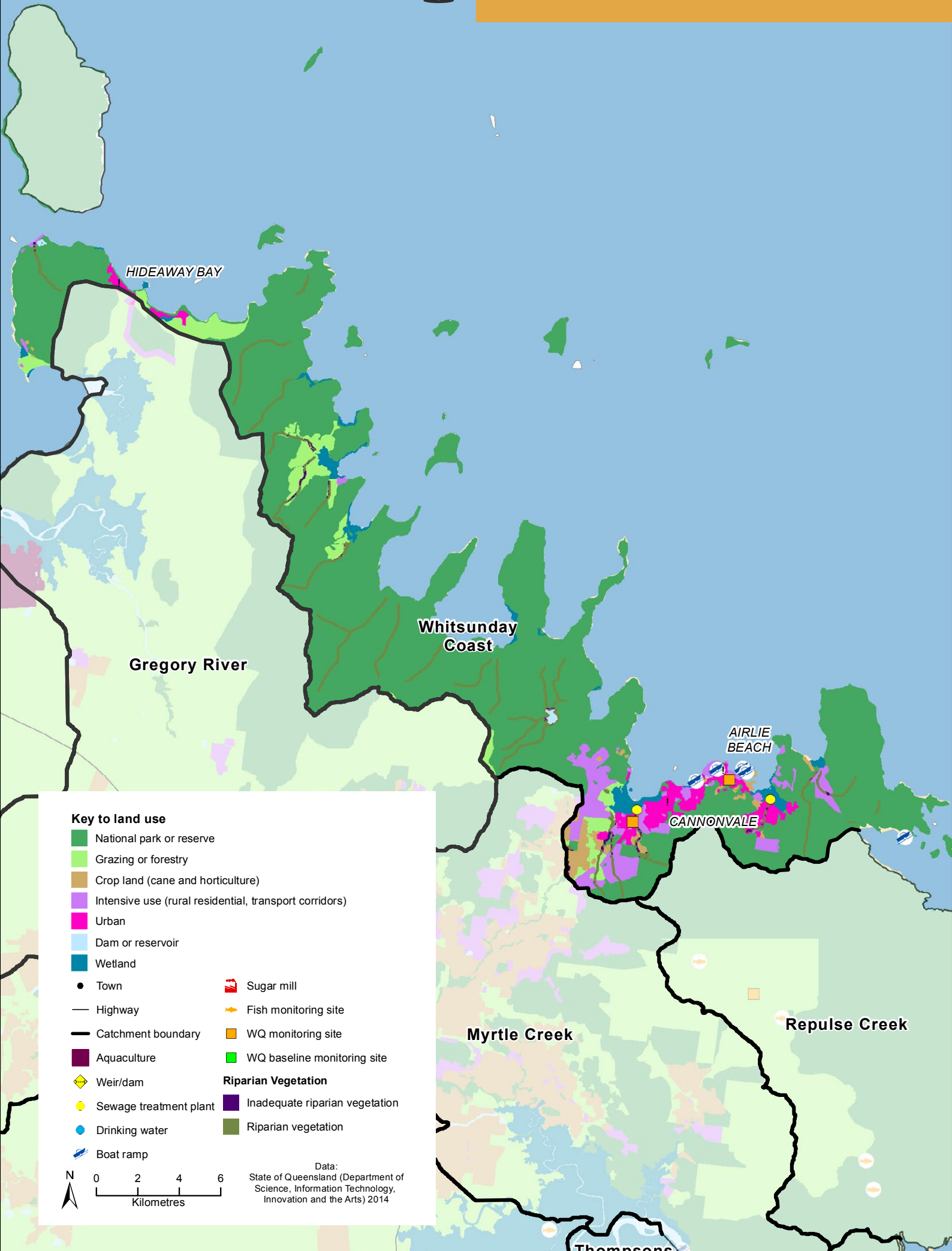
CATCHMENT MANAGEMENT AREA REPORT

3 Whitsunday Coast



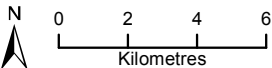


Whitsunday Coast: MAP 1 SUBCATCHMENT LANDUSE



Key to land use

- National park or reserve
- Grazing or forestry
- Crop land (cane and horticulture)
- Intensive use (rural residential, transport corridors)
- Urban
- Dam or reservoir
- Wetland
- Town
- Highway
- Catchment boundary
- Aquaculture
- Weir/dam
- Sewage treatment plant
- Drinking water
- Boat ramp
- Sugar mill
- Fish monitoring site
- WQ monitoring site
- WQ baseline monitoring site
- Riparian Vegetation**
- Inadequate riparian vegetation
- Riparian vegetation



Data:
State of Queensland (Department of
Science, Information Technology,
Innovation and the Arts) 2014

CATCHMENT MANAGEMENT AREA REPORT

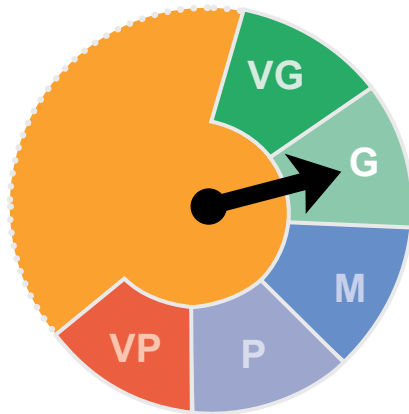
3 Whitsunday Coast



Whitsunday Coast Ecosystem Health Rating

■ Very Good
 ■ Good
 ■ Moderate
 ■ Poor
 ■ Very Poor

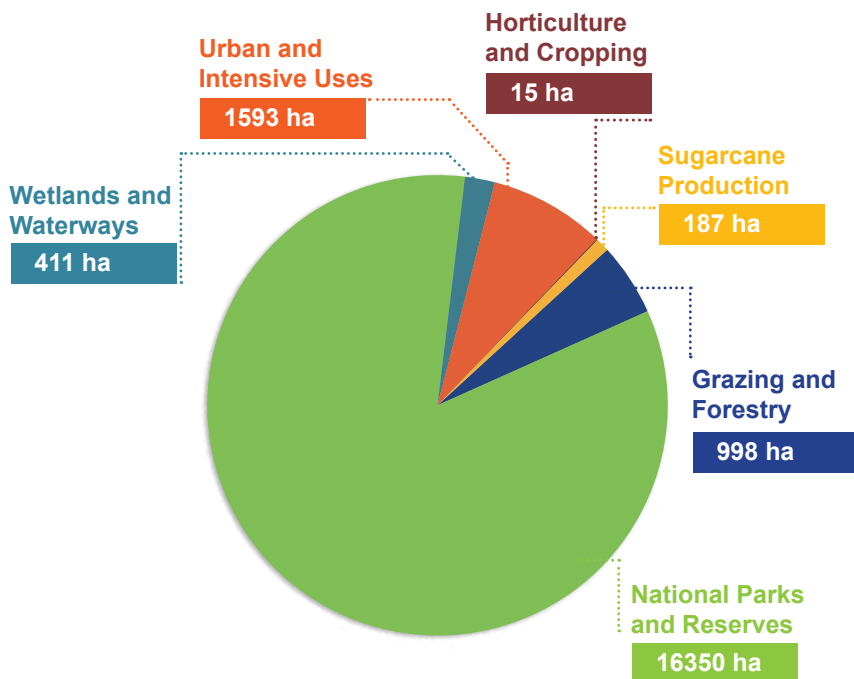
[FRESHWATER Ecosystem Health



G

Whitsunday Coast **freshwater ecosystem** received an overall score of **Good**.

[Total Area by Landuse



Total hectares Whitsunday Coast

19554 ha

The Whitsunday Coast catchment area includes the High Ecological Value areas of Dryander National Park and adjacent inshore fringing reefs. Dryander National Park comprises almost 50% of the catchment and coastline. The urban hubs of Airlie Beach and Cannonvale sit in the north east of the catchment with Shute Harbour to the east. Both Airlie Beach and Shute Harbour are developed on steep sloping coastal foreshores.

In 2007, the Whitsunday Coast catchment was ranked with a high ecological condition relative to other catchment areas in the Mackay Whitsunday region. The modified urban areas of the catchment that receive high intensity rainfall events pose risks and impacts to the adjoining marine area. Between 2007 and 2013, there have been efforts to improve urban stormwater management as well as improving agricultural management practices for water quality benefits.

Table 1 Subcatchment Freshwater Ecosystem Health Indicator Score: Current Condition 2014 and Target 2021

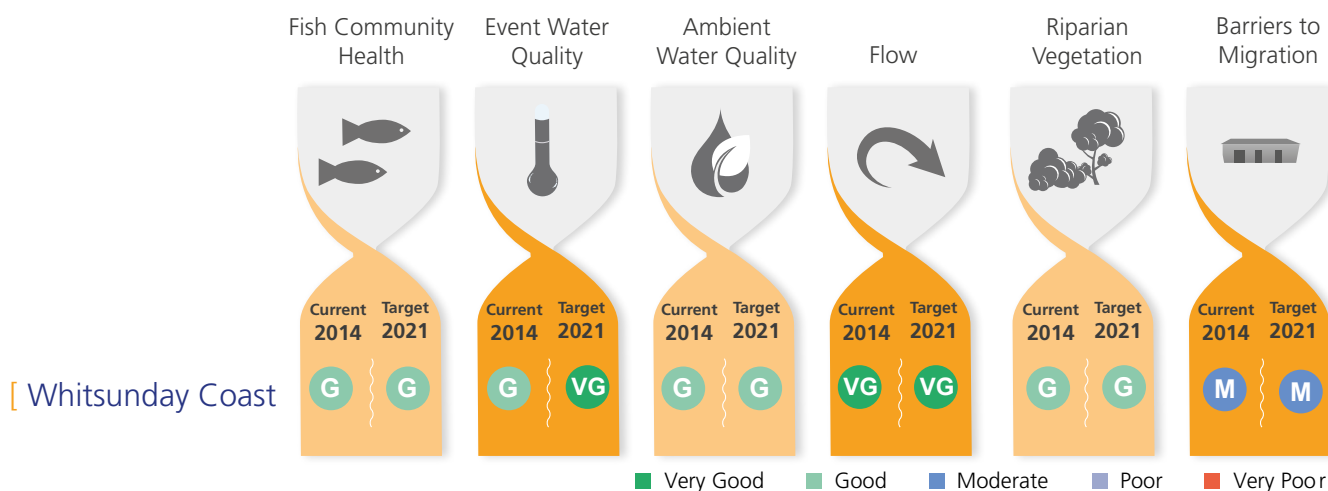


Table 1: OVERVIEW

This index presents the indicators chosen to assess the condition of freshwater ecosystem health. The index uses a combination of monitored data and expert opinion to provide a score for the current condition of fish community health, event water quality, ambient water quality, flow, riparian vegetation, and barriers to migration for each of the region's 33 catchment management areas. The table also presents the target for each indicator to be reached by 2021.

Table 2 Event Freshwater Quality: Current Condition, Targets and Objectives

Key Pollutant	Current Condition	Target 2021	Objective 2050	Action	Pollutant Source
WHTSUNDAY SUBCATCHMENT					
Dissolved Inorganic Nitrogen µg/L	256	256	256	LOW	CIU
Particulate Nitrogen µg/L	261	261	261	LOW	CIUG
Filterable Reactive Phosphorus µg/L	27	27	27	LOW	CIU
Particulate Phosphorus µg/L	31	31	31	LOW	CIUG
Total Suspended Sediment mg/L	8	8	8	LOW	CIUG
Ametryn µg/L	<LOD	<LOD	<LOD	LOW	CIU
Atrazine µg/L	<LOD	<LOD	<LOD	LOW	CIU
Diuron µg/L	<LOD	<LOD	<LOD	LOW	CIU
Hexazinone µg/L	<LOD	<LOD	<LOD	LOW	CIU
Tebuthiuron µg/L	<LOD	<LOD	<LOD	LOW	G

C Cane **IU** Intensive Uses **G** Grazing

Table 2: OVERVIEW

This table presents the current condition (2014) event freshwater quality values for nutrients, sediment, and herbicides. It also presents water quality targets for 2021 and 2050 water quality objectives that have been calculated based on an achievable level of adoption of improved management practices and the level of effort that will be required ("Action"). For each of the pollutants listed, the table also identifies the main pollutant source.

Table 3 Action Targets: Ecosystem Health Management

L = Low, M = Moderate, H = High





		Condition 2014	Planned Activities to 2021	Effort	\$ Cost
Whitsunday Coast					
Barriers (number)		4	0	L	\$0
Riparian Vegetation Management (hectares)		718 ha	11 ha	H	\$134,550
Bank and bed stabilisation (kilometres)		n/a	5 km	H	\$476,600
In-stream Habitat Works (number)		n/a	1	H	\$23,831
Total Cost = \$634,981					

Table 3: OVERVIEW

This table presents the on-ground management actions determined to be required to improve ecosystem health, including the removal of barriers to fish migration, establishment of riparian vegetation, bank stabilisation, and in-stream habitat works. The table displays the current condition for each component, as well as the planned activities to be completed by 2021, the level of effort required and associated costs.

Tables 4 and 5: OVERVIEW

The tables below display the current level of management practices for Sugarcane/ Horticulture, Grazing, and Urban within D, C, B and A Management Framework classifications at 2014. The table also presents the level of voluntary adoption of management practices required to meet 2021 objectives and their associated costs.

Table 4 Agriculture ABCD Adoption Targets

Land Use		2014 Adoption %				2021 Adoption %				Total Cost \$ '000s
		D	C	B	A	D	C	B	A	
WHITSUNDAY SUBCATCHMENT										
Cane & Horticulture	Soil	35%	45%	15%	5%	30%	45%	20%	5%	3
	Nutrient	40%	45%	10%	5%	30%	45%	20%	5%	8
	Herbicide	40%	45%	10%	5%	30%	45%	20%	5%	8
Grazing	Soil	25%	40%	30%	5%	20%	40%	35%	5%	13

D Dated practices C Conventional practices B Best practices A Aspirational

Table 5 Urban Practice ABCD Adoption Targets

Land Use		2014 Adoption %				2021 Adoption %				Total Cost \$ '000s
		D	C	B	A	D	C	B	A	
WHITSUNDAY SUBCATCHMENT										
Diffuse Source Water Quality - DEVELOPMENT PLANNING AND CONSTRUCTION PHASE		20%	80%	0%	0%	0%	50%	40%	10%	1135
Diffuse Source Water Quality - POST-CONSTRUCTION/ OPERATIONAL PHASE		15%	85%	0%	0%	0%	50%	40%	10%	1135

D Dated practices C Conventional practices B Best practices A Aspirational