

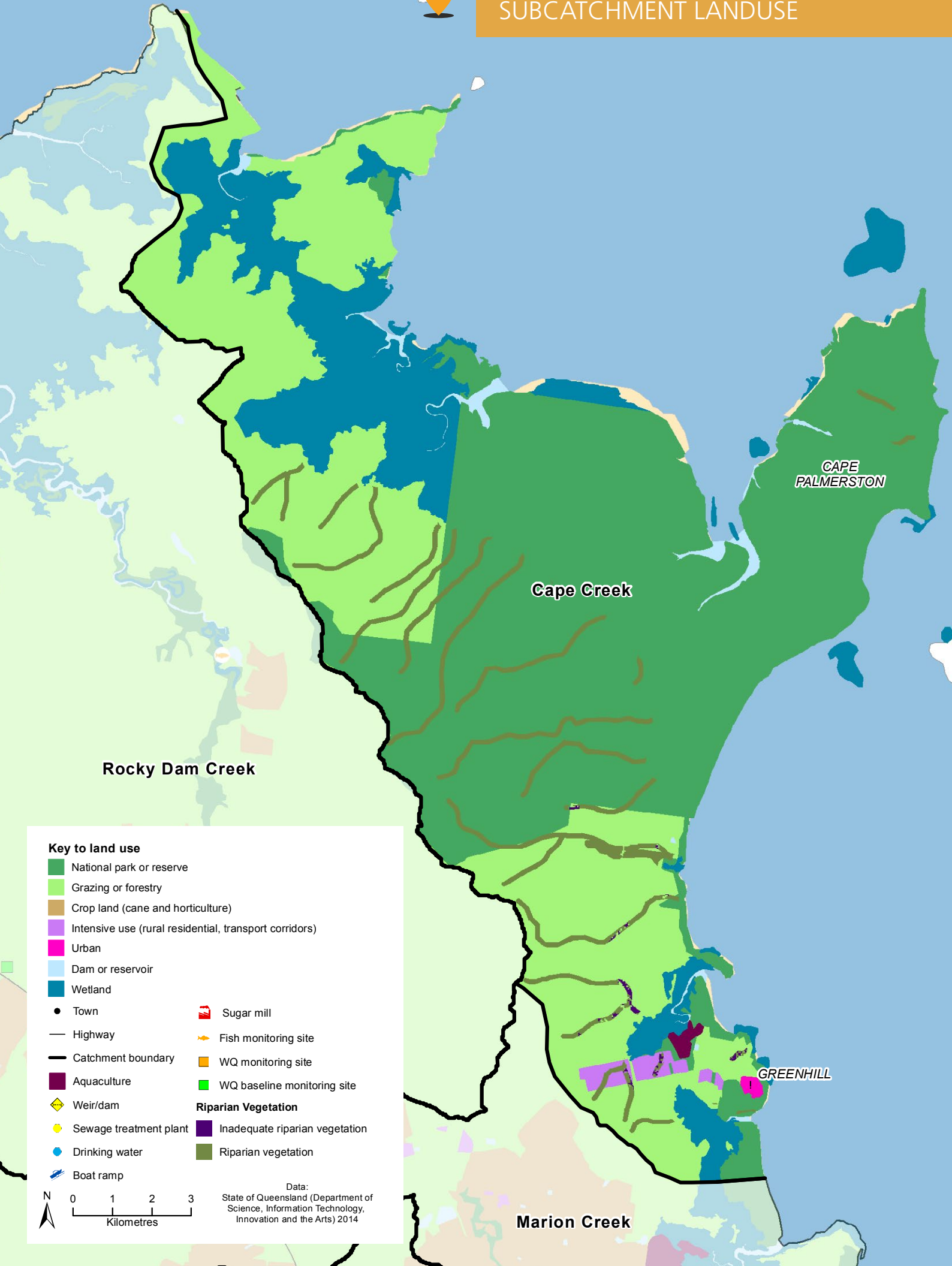


WATER QUALITY IMPROVEMENT PLAN 2014 - 2021

CATCHMENT MANAGEMENT AREA REPORT

28 Cape Creek





Rocky Dam Creek

Cape Creek

CAPE PALMERSTON

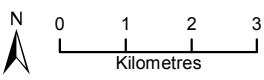
GREENHILL

Marion Creek

**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

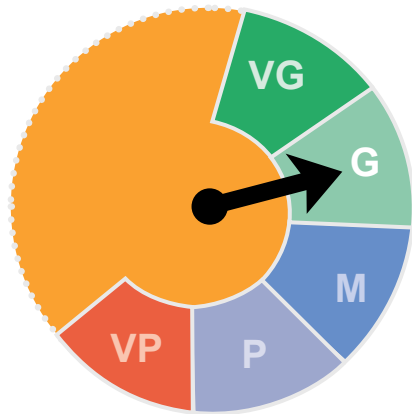
# 28 Cape Creek



## Cape Creek Ecosystem Health Rating

Very Good Good Moderate Poor Very Poor

FRESHWATER Ecosystem Health



G

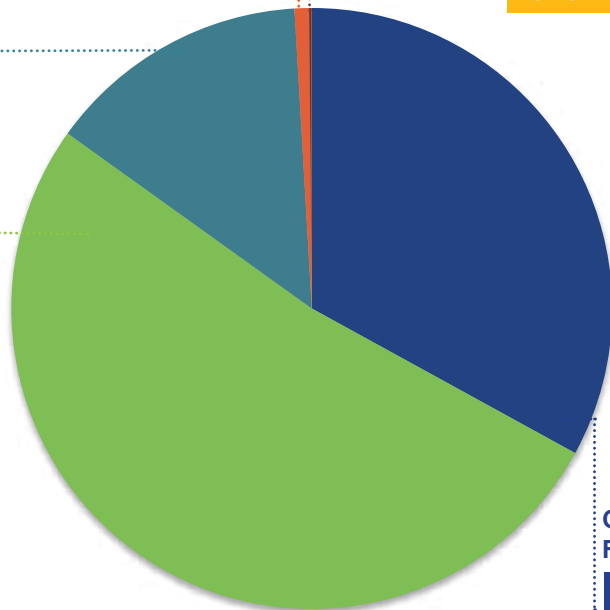
The Cape Creek **freshwater ecosystem** received an overall score of **Good**.

## Total Area by Landuse

Urban and Intensive Uses 117 ha  
 Horticulture and Cropping 22 ha  
 Sugarcane Production 0 ha

Wetlands and Waterways 2131 ha

National Parks and Reserves 7804 ha



Grazing and Forestry 4960 ha

Total hectares Cape Creek

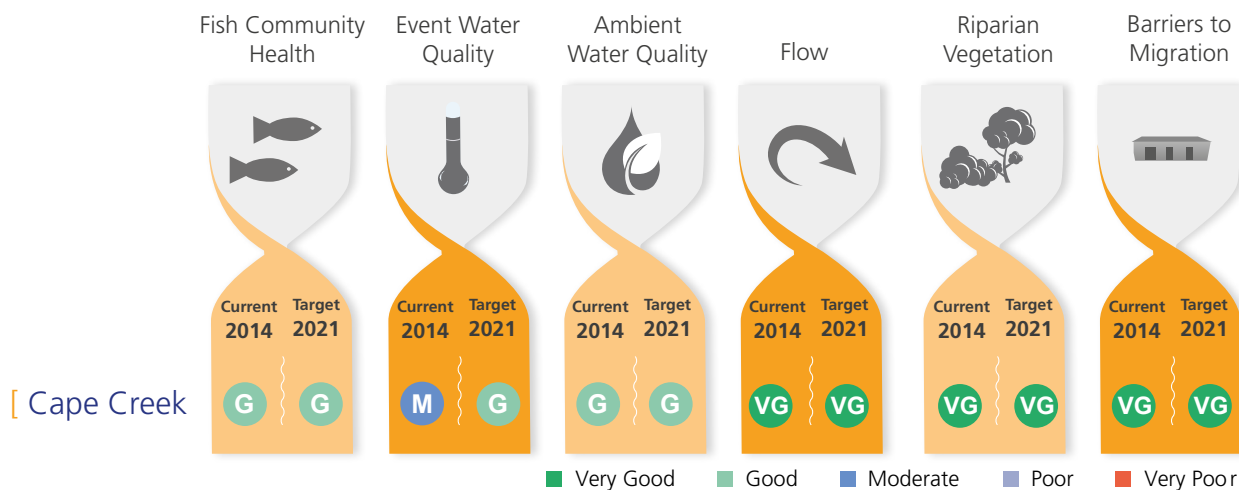
15034 ha

The Cape Creek catchment management area includes the High Ecological Value areas of Cape Palmerston National Park, Ince Bay and adjacent inshore fringing reefs. The National Park comprises more than 50% of the catchment area with extensive stretches of coastline that include rocky headlands, a range of lowland vegetation and beaches. The marine inshore water supports regionally significant seagrass beds that are critical to sustaining local dugong and turtle populations. A third of the catchment is utilised for grazing production with some small cane plantations.

Management practices that reduce atrazine and diuron loads are a priority for the Cape Creek catchment area. Grazing management practices that reduce nitrogen loads need to be addressed through improved grazing management practices to improve event water quality.

All system repair actions that support an improvement in fish communities are of the highest priority. Future management efforts are also focusing on improving coastal wetland extent and condition and activities to help support regeneration of inshore seagrass beds.

**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
CAPE CREEK SUBCATCHMENT					
Dissolved Inorganic Nitrogen µg/L	48	48	48	LOW	CIU
Particulate Nitrogen µg/L	152	152	152	LOW	CIUG
Filterable Reactive Phosphorus µg/L	3	3	3	LOW	CIU
Particulate Phosphorus µg/L	37	37	37	LOW	CIUG
Total Suspended Sediment mg/L	66	66	66	LOW	CIUG
Ametryn µg/L	<LOD	<LOD	<LOD	LOW	CIU
Atrazine µg/L	0.02	0.02	0.02	LOW	CIU
Diuron µg/L	0.07	0.06	0.05	V HIGH	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
<b>Cape Creek</b>					
Barriers (number)		0	0	L	\$0
Riparian Vegetation Management (hectares)		3596 ha	9 ha	M	\$109,650
Bank and bed stabilisation (kilometres)		n/a	0	L	\$0
In-stream Habitat Works (number)		n/a	0	L	\$0
<b>Total Cost = \$109,650</b>					

**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.

**Table 4: OVERVIEW**

The table below displays 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	
CAPE CREEK SUBCATCHMENT										
Cane & Horticulture	Soil	35%	45%	15%	5%	30%	45%	20%	5%	0
	Nutrient	40%	45%	10%	5%	30%	45%	20%	5%	0
	Herbicide	40%	45%	10%	5%	35%	40%	20%	5%	0
Grazing	Soil	25%	40%	30%	5%	20%	40%	35%	5%	67

D Dated practice    C Common practice    B Best practice    A Cutting-edge practice