

Water Quality Improvement Plan 2014 - 2021

Whitsunday Coast 2014



DRAFT



Mackay | Whitsunday | Isaac

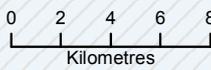


Whitsunday Coast Receiving Waters

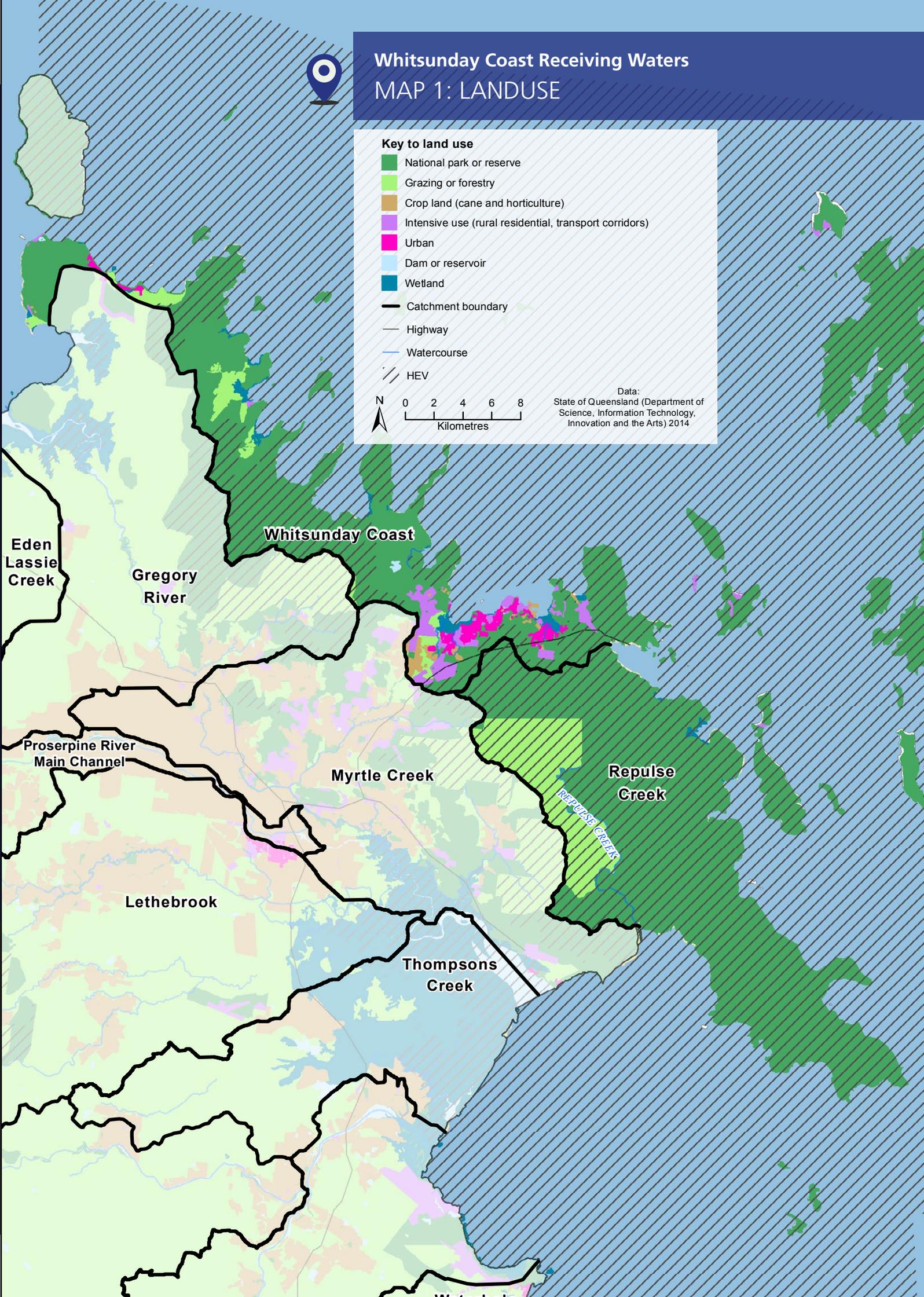
MAP 1: LANDUSE

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
- Catchment boundary
- Highway
- Watercourse
- HEV



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



Whitsunday Coast 2

The Whitsunday Coast receiving waters are made up of both the Whitsunday and Repulse Creek subcatchments. The Whitsunday Coast is characterised by the large proportion of National Parks and Reserves in the region, making up nearly 75% of the landuse. Conway National Park is the largest National Park, covering 22 000 ha and encompassing the Conway Range, then extending east to meet the Whitsunday coastline.

Seaward of the Whitsunday Coast lie the Whitsunday, Molle, Lindeman, and Smith island groups. These island groups and fringing reef systems play an extremely important role for tourism operators working primarily from Airlie Beach, the Whitsunday Coast's major urban area.

The Whitsunday Coast receiving waters contain the biggest area of seagrass in the region, and a large area of mapped coral reef.

Current Condition Report

Freshwater/ Terrestrial

Whitsunday Coast's freshwater ecosystems received an overall score of **Very Good**, with the Repulse Creek subcatchment assessed as being in the best condition of all subcatchments in the region. The Repulse Creek subcatchment received a score of Very Good for the condition of all measured attributes.

The Whitsunday Coast subcatchment received a **Good** for ambient and event water quality, fish community health, and riparian vegetation. The subcatchment was scored **Very Good** for flow, but **Moderate** for barriers to migration. Whitsunday Coast's riparian vegetation cover is the highest in the region with approximately 95% of the riparian area containing adequate vegetation cover.

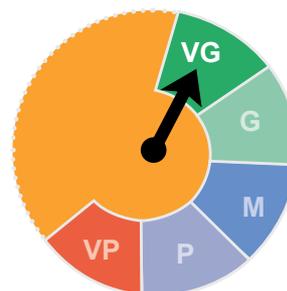
Marine

The receiving waters of the Whitsunday Coast have received an overall condition score of **Good**. Waterways entering the Whitsunday Coast receiving waters are low in anthropogenic pollutants. The Whitsunday Coast marine waters, however, are impacted by poor water quality originating from Repulse Bay in the south that is transported to the Whitsunday Coast by wind and tidal movement.

The movement of this poorer quality water results in the southern half of the Whitsunday Coast's marine waters having a **High** Marine Risk score, while the northern half has a **Moderate** Marine Risk Score. 12% of the coral and 9% of seagrass was classified as being at **High** risk from the impacts of water quality.

Ecosystem Health Rating

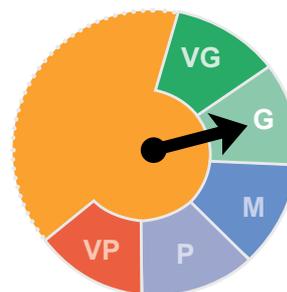
Very Good Good Moderate Poor Very Poor



FRESHWATER

Ecosystem Health

Whitsunday Coast freshwater ecosystems received an overall score of **Very Good**.

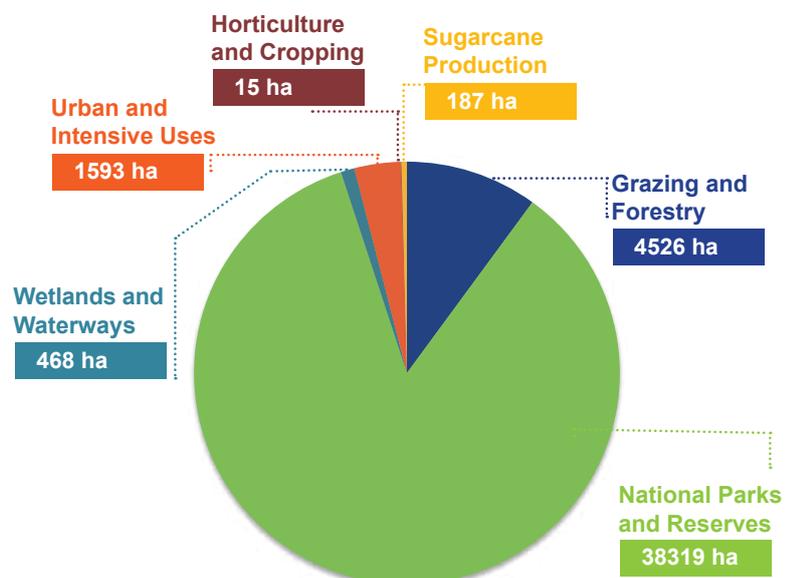


MARINE

Ecosystem Health

Whitsunday Coast marine ecosystems received an overall score of **Good**.

Subcatchments Total Area by Landuse



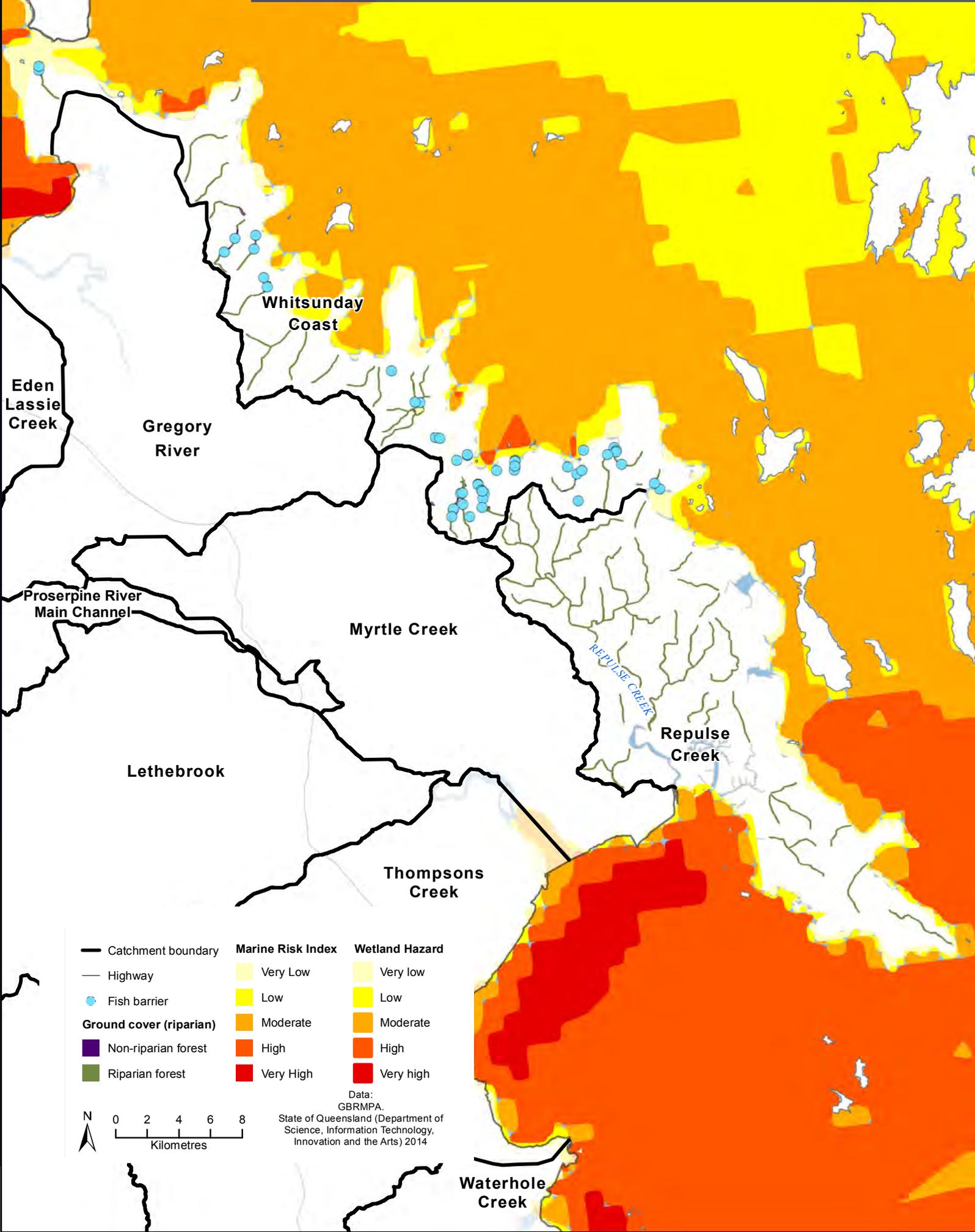
Total hectares Whitsunday Coast Receiving Waters

45108 ha



Whitsunday Coast Receiving Waters

MAP 2: MARINE RISK INDEX AND ECOLOGICAL CONDITION



	Marine Risk Index	Wetland Hazard
— Catchment boundary	Very Low	Very low
— Highway	Low	Low
● Fish barrier	Moderate	Moderate
Ground cover (riparian)	High	High
■ Non-riparian forest	Very High	Very high
■ Riparian forest		

Data:
GBRMPA.
State of Queensland (Department of
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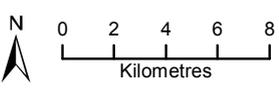
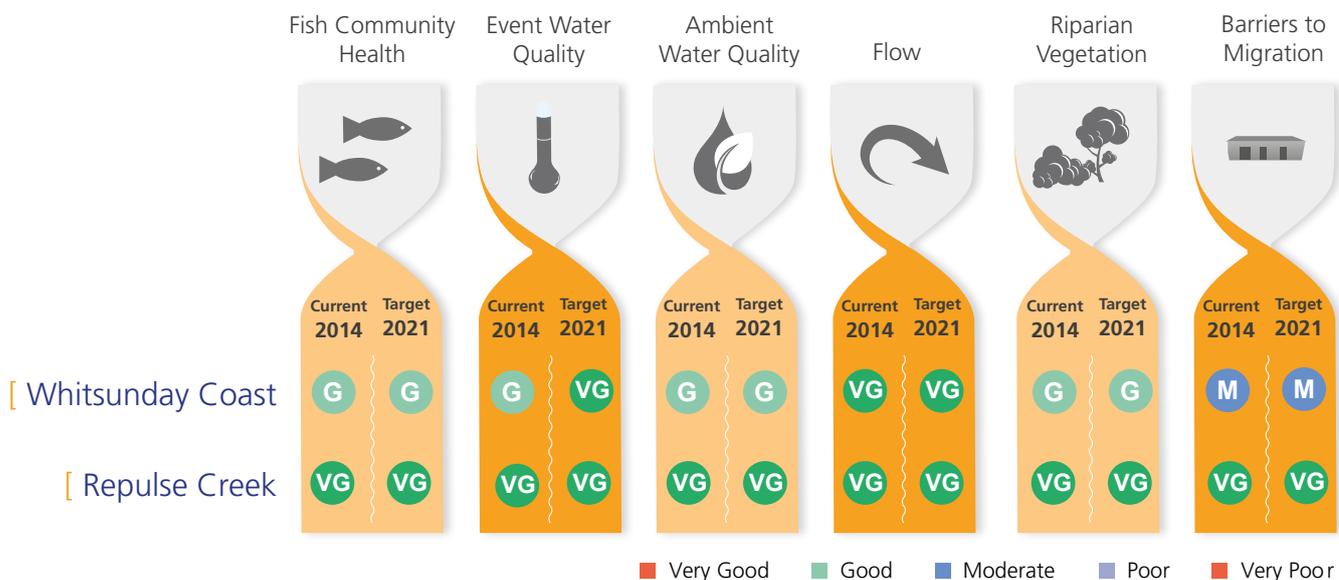


Table 1: OVERVIEW

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

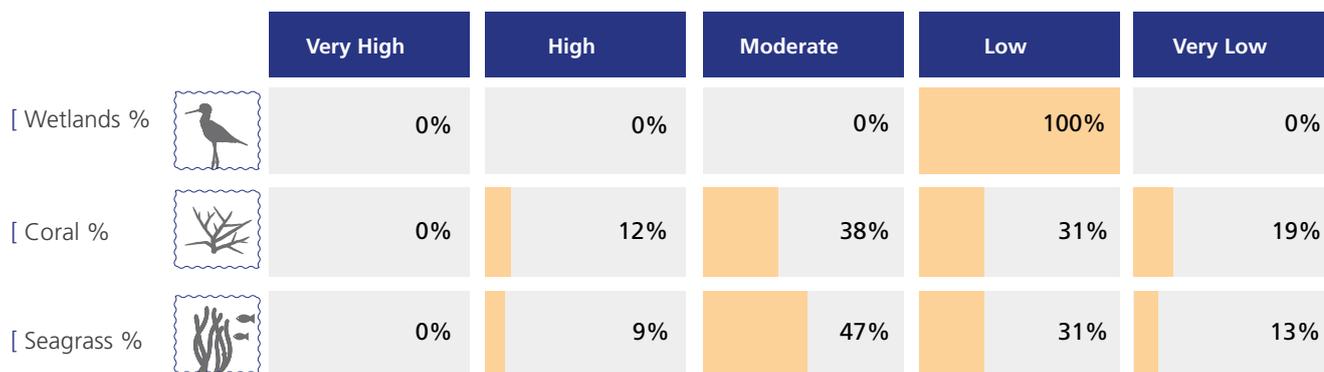


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Table 2: OVERVIEW

This table displays the total area (as a percentage) of wetlands, coral, and seagrass that exist within each risk category. The risk categories represent the presence of land-based pollutants of greatest risk, ranging from Very Low Risk to Very High Risk.

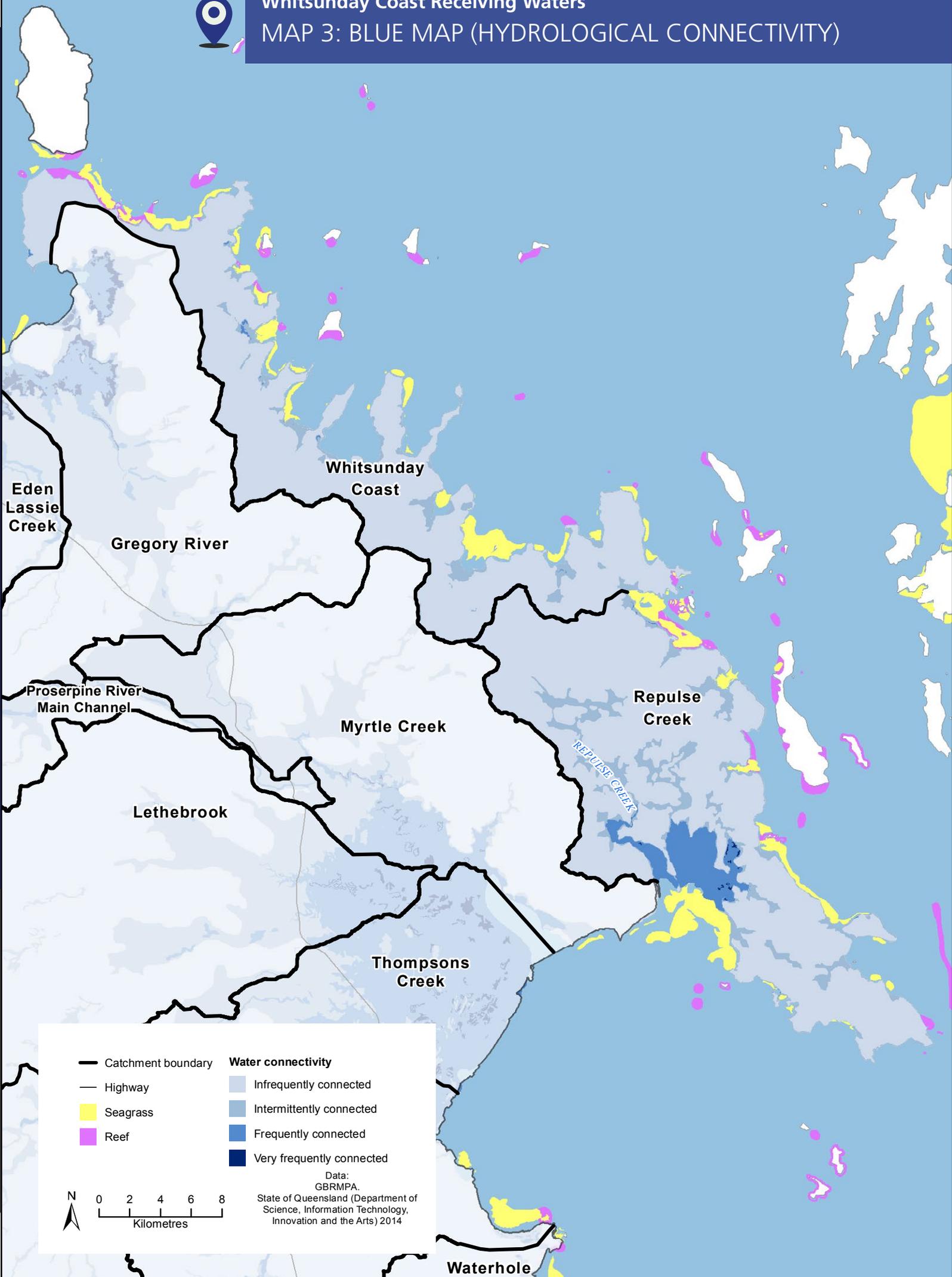
Table 2 [Marine Risk and Wetland Hazard





Whitsunday Coast Receiving Waters

MAP 3: BLUE MAP (HYDROLOGICAL CONNECTIVITY)



Eden Lassie Creek

Gregory River

Whitsunday Coast

Proserpine River Main Channel

Myrtle Creek

Repulse Creek

Lethebrook

Thompsons Creek

REPULSE CREEK

Waterhole

— Catchment boundary

— Highway

■ Seagrass

■ Reef

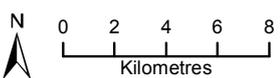
Water connectivity

■ Infrequently connected

■ Intermittently connected

■ Frequently connected

■ Very frequently connected



Data:
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State of Queensland (Department of
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Innovation and the Arts) 2014

[Key Area Targets (corresponding with Blue Map)

The hydrological connectivity shown on the Blue Map is used to prioritise activities for best ecosystem outcomes. The below details the target activities for areas of differing levels of connectivity.

Infrequently Connected areas

- Maintain and protect current level of processes.

Intermittently Connected areas

- Maintain and protect current level of processes.

Frequently Connected areas

To improve ecological processes in frequently connected areas:

- Target ponded pastures (20 ha)
- Production forestry (58 ha)

Very Frequently Connected areas

- Maintain and protect current level of processes.

MAP DATA SOURCES PROVIDED BY:

STATE OF QUEENSLAND (DEPARTMENT OF SCIENCE, INFORMATION TECHNOLOGY, INNOVATION AND THE ARTS) 2014, GREAT BARRIER PARK MARINE AUTHORITY, MACKAY REGIONAL COUNCIL, ISAAC REGIONAL COUNCIL AND WHITSUNDAY REGIONAL COUNCIL.

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