



WATER QUALITY IMPROVEMENT PLAN 2014 - 2021

CATCHMENT MANAGEMENT AREA REPORT

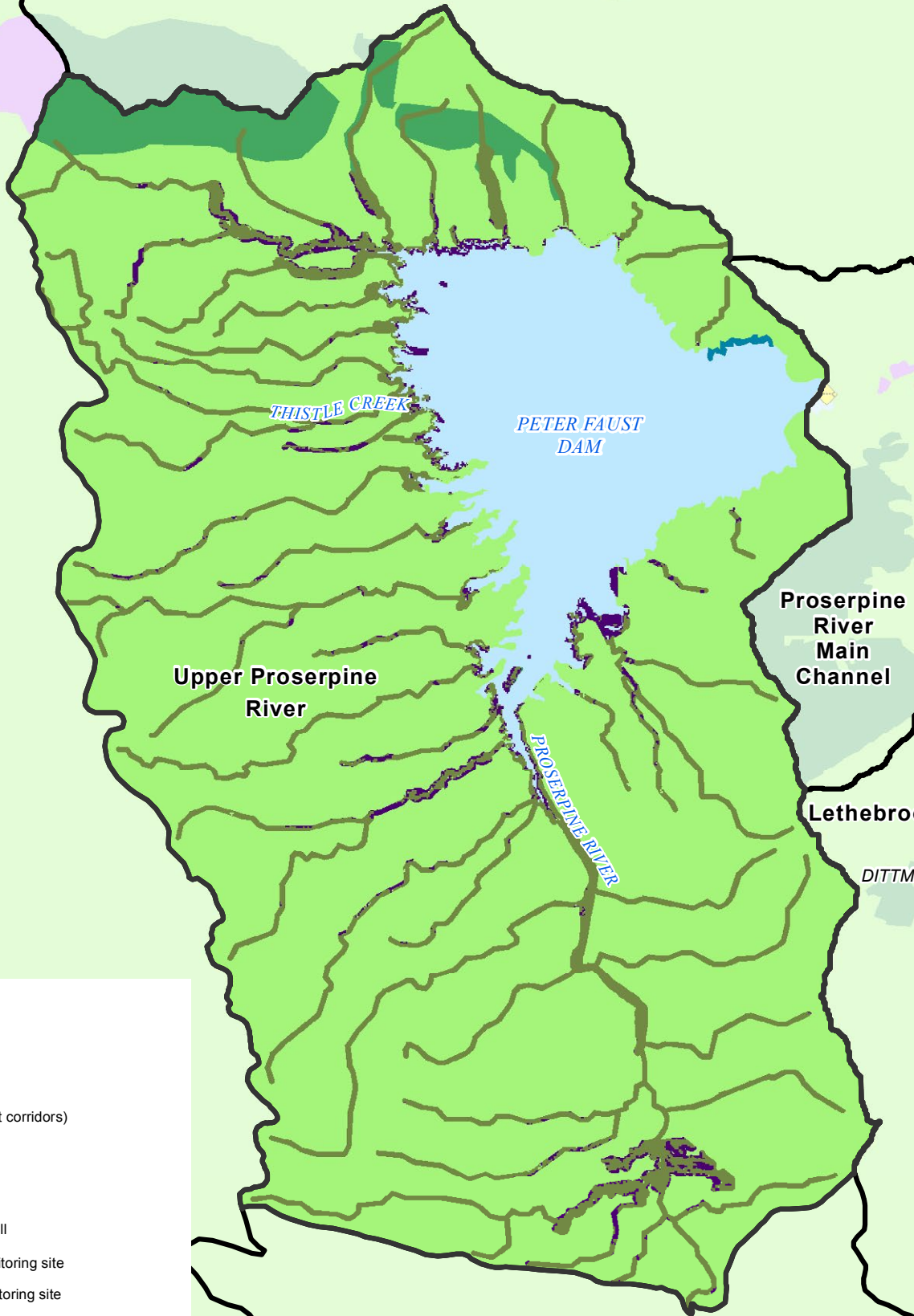
7 Upper Proserpine River





Upper Proserpine River: MAP 1 SUBCATCHMENT LANDUSE

Eden Lassie Creek



Proserpine River Main Channel

Lethebro

DITTM

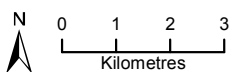
Andromache River

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
- Inadequate riparian vegetation
- Riparian vegetation

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



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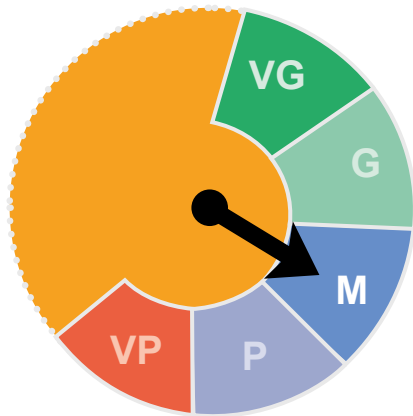
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Upper Proserpine River Ecosystem Health Rating

Very Good Good Moderate Poor Very Poor

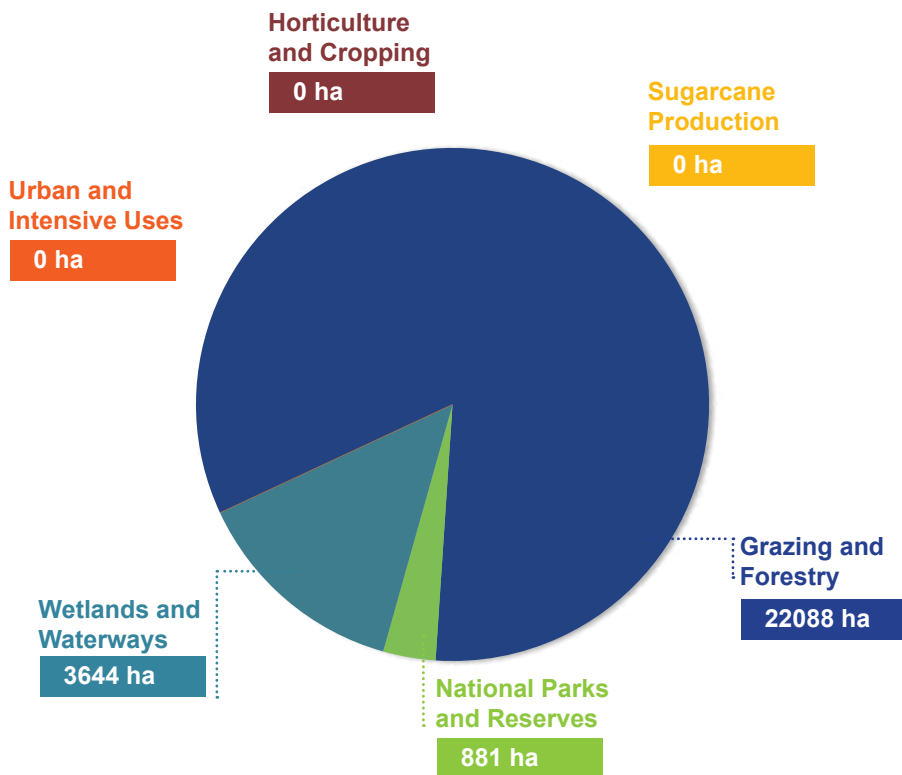
FRESHWATER Ecosystem Health



M

Upper Proserpine River freshwater ecosystem received an overall score of **Moderate**.

Total Area by Landuse



Total hectares Upper Proserpine River

26613 ha

The Upper Proserpine River catchment is dominated by Peter Faust Dam that occupies more than 10% of the catchment area. Constructed in 1990, the dam supplies water for regional cane production and milling plus town water for Bowen, Proserpine, Airlie Beach and Midge Point urban centres. While the Upper Proserpine River supports good instream and riparian habitat the dam impacts dramatically on flow regimes and fish passage. Although the dam primarily supplies irrigation for the regional cane industry, the catchment's primary agricultural value is grazing with 85% of the area supporting cattle production.

Between 2007 and 2013 there have been excellent efforts to improve grazing management practice with sustainable pasture improvement and riparian management. This work by local farmers is a good foundation on which to build further initiatives for ecosystem health for the catchment. Grazing management practices that reduce particulate nitrogen loads are the priority for improving event water quality of the Upper Proserpine River catchment area. Management strategies to improve flow from Peter Faust Dam to mimic natural flow regimes of the Upper Proserpine River will be key to improving fish community abundance and diversity.

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

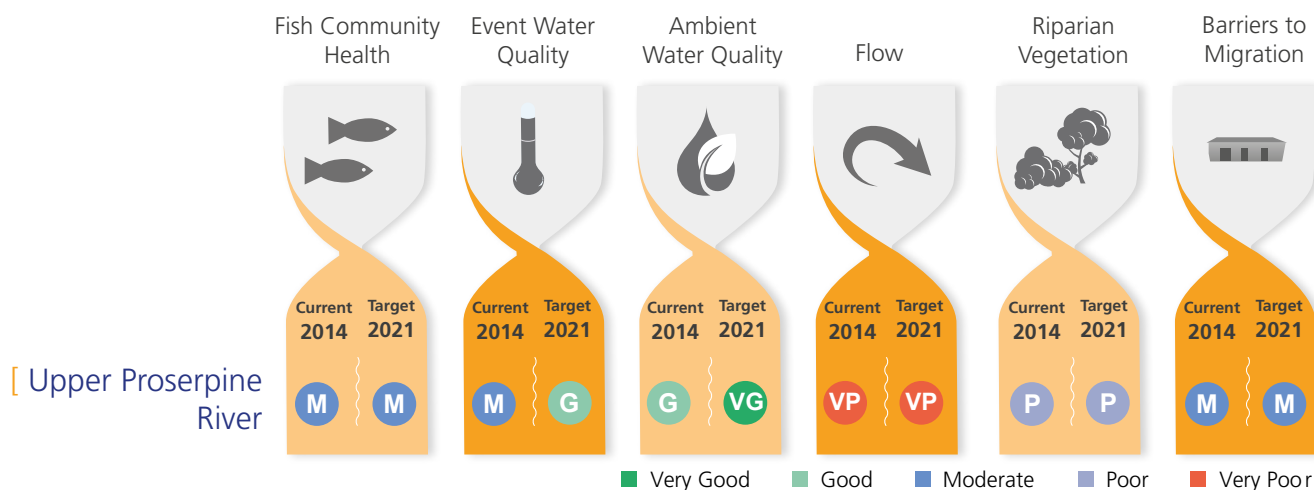


Table 1: OVERVIEW

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
UPPER PROSERPINE RIVER					
Dissolved Inorganic Nitrogen µg/L	300	300	300	LOW	CIU
Particulate Nitrogen µg/L	19	19	19	LOW	CIUG
Filterable Reactive Phosphorus µg/L	31	31	30	LOW	CIU
Particulate Phosphorus µg/L	1	1	1	LOW	CIUG
Total Suspended Sediment mg/L	10	10	10	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
Upper Proserpine River					
Barriers (number)		2	0	L	\$0
Riparian Vegetation Management (hectares)		2545 ha	0	L	\$0
Bank and bed stabilisation (kilometres)		n/a	0	L	\$0
In-stream Habitat Works (number)		n/a	0	L	\$0
Total Cost = \$0					

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: 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		
UPPER PROSERPINE RIVER										
Grazing	Soil	25%	24%	46%	5%	20%	25%	50%	5%	202
D Dated practice C Common practice B Best practice A Cutting-edge practice										