



WATER QUALITY IMPROVEMENT PLAN 2014 - 2021

CATCHMENT MANAGEMENT AREA REPORT

10 Andromache River



Andromache River: MAP 1 SUBCATCHMENT LANDUSE



DITTMER

Upper Proserpine River

Lethebrook

Thompsons Creek

ANDROMACHE RIVER

SCRUB CREEK

Andromache River

BLOOMSBURY

O'Connell 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
- Sugar mill
- Highway
- Fish monitoring site
- WQ monitoring site
- WQ baseline monitoring site
- Aquaculture
- Weir/dam
- Riparian Vegetation
- Sewage treatment plant
- Inadequate riparian vegetation
- Riparian vegetation
- Drinking water
- Boat ramp

Riparian Vegetation

- Inadequate riparian vegetation
- Riparian vegetation

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

Scale:
0 2 4 6
Kilometres

CATCHMENT MANAGEMENT AREA REPORT

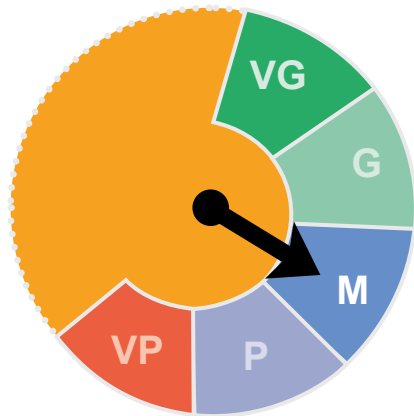
10 Andromache River



Andromache River Ecosystem Health Rating

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

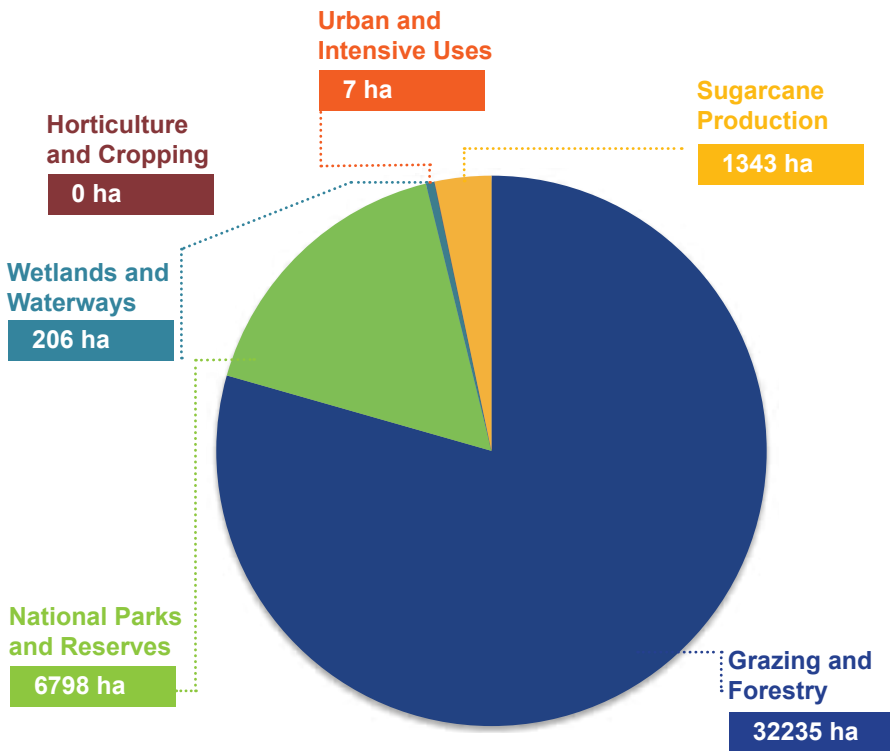
FRESHWATER Ecosystem Health



M

The Andromache River freshwater ecosystem received an overall score of **Moderate**.

Total Area by Landuse



Total hectares Andromache River

40589 ha

The Andromache River flows 46 kilometers from the highlands of the Clarke Connor range before joining the downstream reaches of the O'Connell River. Eighty percent of the catchment is dominated by grazing with a small amount of land under cane production toward the coastal flats. The remaining 17% of the catchment is National Park and reserve.

Grazing and cane management practices that reduce particulate phosphorous loads are the highest priority for improving event water quality in the Andromache River catchment area. Management practices that reduce total suspended sediment are a moderate priority.

System repair actions for flow, barrier removal and instream habitat and riparian vegetation important are the highest priority. A significant increase towards investment in active management and restoration of instream habitat and riparian vegetation is required to enable fish communities to gain the maximum benefits from the improvement in water quality.

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

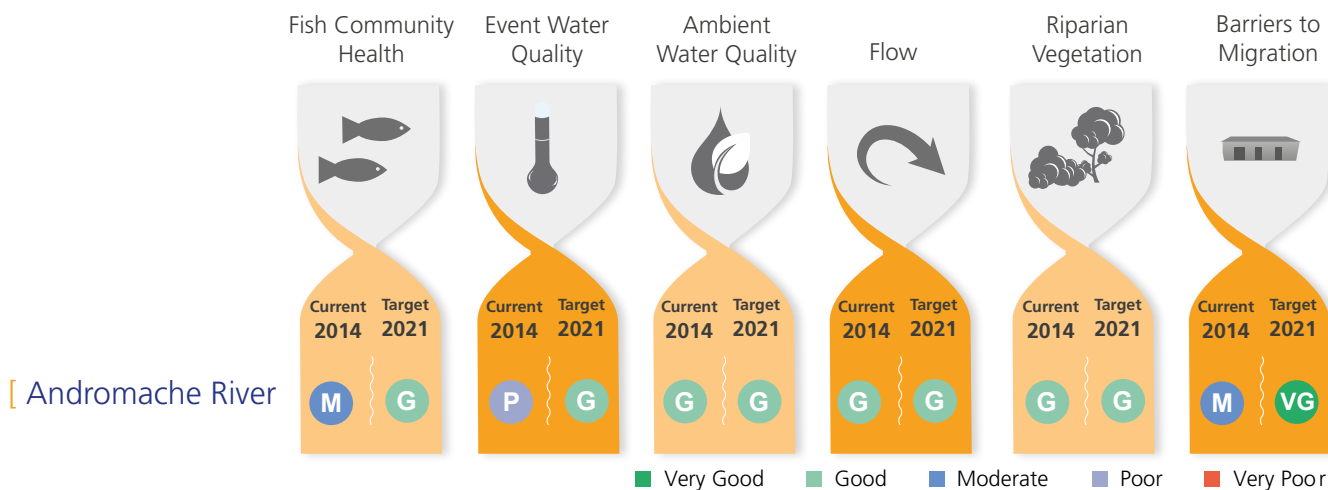


Table 1: OVERVIEW

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
ANDROMACHE RIVER SUBCATCHMENT					
Dissolved Inorganic Nitrogen µg/L	306	295	295	MEDIUM	CIU
Particulate Nitrogen µg/L	382	330	330	V HIGH	CIUG
Filterable Reactive Phosphorus µg/L	31	31	30	LOW	CIU
Particulate Phosphorus µg/L	202	174	70	V HIGH	CIUG
Total Suspended Sediment mg/L	251	216	200	V HIGH	CIUG
Ametryn µg/L	<LOD	<LOD	<LOD	LOW	CIU
Atrazine µg/L	0.02	0.02	0.02	HIGH	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
Andromache River					
Barriers (number)		2	2	M	\$120,000
Riparian Vegetation Management (hectares)		3901 ha	59 ha	H	\$731,500
Bank and bed stabilisation (kilometres)		n/a	0	L	\$0
In-stream Habitat Works (number)		n/a	0	L	\$0
Total Cost = \$851,500					

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	
ANDROMACHE RIVER										
Cane & Horticulture	Soil	11%	31%	53%	5%	10%	25%	60%	5%	26
	Nutrient	12%	25%	48%	15%	10%	20%	50%	20%	34
	Herbicide	12%	25%	45%	18%	10%	20%	50%	20%	34
Grazing	Soil	25%	39%	28%	9%	5%	20%	65%	10%	3086

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