

# Fitzroy River Catchment

## Catchment Information

### Description

<b>Area (km<sup>2</sup>)</b>	142537
<b>% Gauged</b>	95
<b>Mean Discharge Yr (km<sup>3</sup>)</b>	6
<b>Rainfall (mm)</b>	735
<b>Runoff (mm/m<sup>2</sup>)</b>	43
<b>Runoff/Rainfall Ratio</b>	6

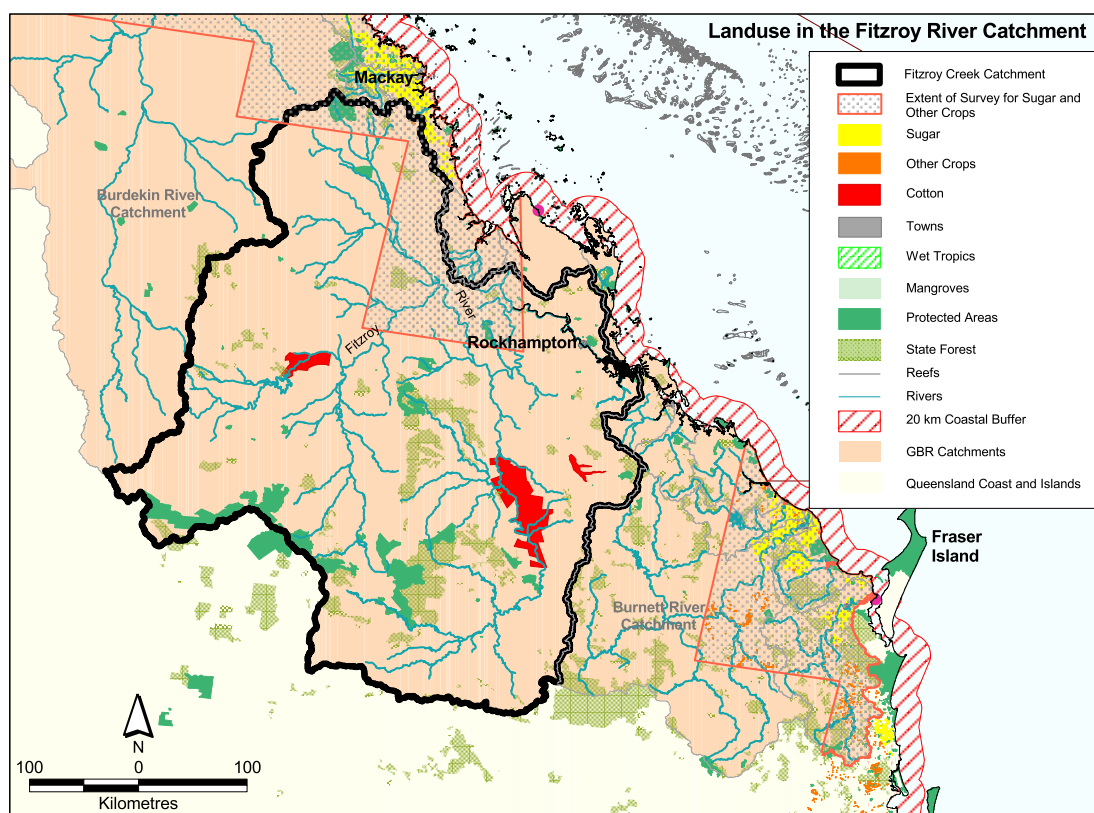
### Land Use

<b>Population</b>	114536
<b>Clearing (km<sup>2</sup>)</b>	85942
<b>% Cleared</b>	60
<b>Area under Grazing (km<sup>2</sup>)</b>	124732
<b>Area under Sugar (km<sup>2</sup>)</b>	<1
<b>Area under Horticulture (km<sup>2</sup>)</b>	2790

## Catchment Targets

	1850 T/yr	Current T/yr	Current T/ km <sup>3</sup>	ratio	2011 % Red'n	2011 T/yr Target	2011 T/ km <sup>3</sup> Target
<b>Sediment Export</b>	126000	2635482	433388	20.9	50	1317741	216694
<b>Total N Export</b>	1482	6579	1082	4.4	33	4408	725
<b>Total P Export</b>	74	1440	237	19.5	50	720	119

Data Confidence Index = 3



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The Fitzroy River catchment covers an area of 142537 km<sup>2</sup>. Grazing is the dominant land use occupying approximately 124732 km<sup>2</sup>, whilst cotton occupies approximately 2790 km<sup>2</sup> of the catchment (derived from data provided by Cotton Australia, 2000). State forest and timber reserves occupy 9820 km<sup>2</sup> and protected areas cover 5195 km<sup>2</sup>. Sediment and total phosphorus exports are classified as high risk, whilst total nitrogen export is classified as medium risk.

### *Issues in the catchment:*

- Grazing land is under reasonable stocking rates. Drought conditions can cause pressure on grazing land. Severe gully erosion has occurred in some areas.
- Coal and mining industries are developed and prevention of acid runoff from mined areas will ensure the water quality of the region is maintained.
- Water storage structures and dams have been constructed within this catchment area. These structures impact on instream activities of aquatic fauna limiting their upstream movements.
- Flood plain contains intensive fertilised cropping, predominantly cotton.
- Increasing areas of cotton cultivation in the catchment can contribute towards the amount of sediment, fertiliser and pesticides entering the Fitzroy River.
- Fauna species are threatened due to changes in the catchment.
- Approximately 4% of the catchment is within protected areas.
- Approximately 60% of the catchments have been cleared mostly for grazing.
- Large commercial and recreational fishery.
- Marine tourism.
- Military reserves.
- Close proximity to critical dugong protection areas in the southern Great Barrier Reef.

AIMS conducted water sampling for nutrient analysis in the Fitzroy River between 1992 and 1997 in collaboration with the Central Queensland University and Rockhampton City Council. An automated AIMS river logger has been deployed in this river for a number of years to obtain five-scale turbidity profiles through each wet season. DNR have carried out water quality studies identifying the sources of suspended sediments, nutrients and pesticide residues in the river.

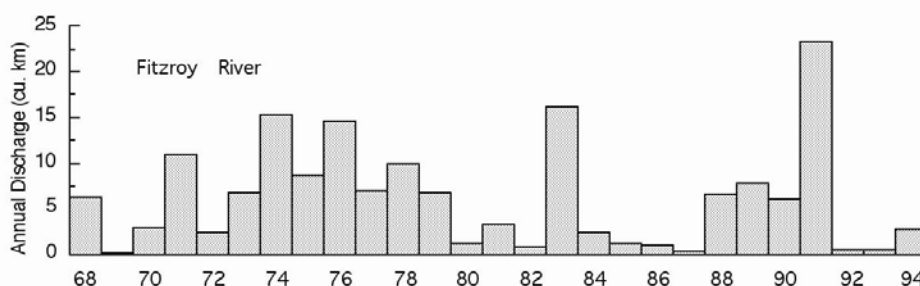


Figure 25. Water discharge patterns in the Fitzroy River.