Barron River Catchment

Catchment Information

Description

Area (km²)	2902
% Gauged	89
Mean Discharge Yr (km³)	0.8
Rainfall (mm)	1453
Runoff (mm/m²)	279
Runoff/Rainfall Ratio	19

Land Use

Population	23814
Clearing (km²)	130
% Cleared	6
Area under Grazing (km²)	227*
Area under Sugar (km²)	76*
Area under Horticulture (km²)	117

Pesticide Application

(Kg Active Ingredient/Yr)

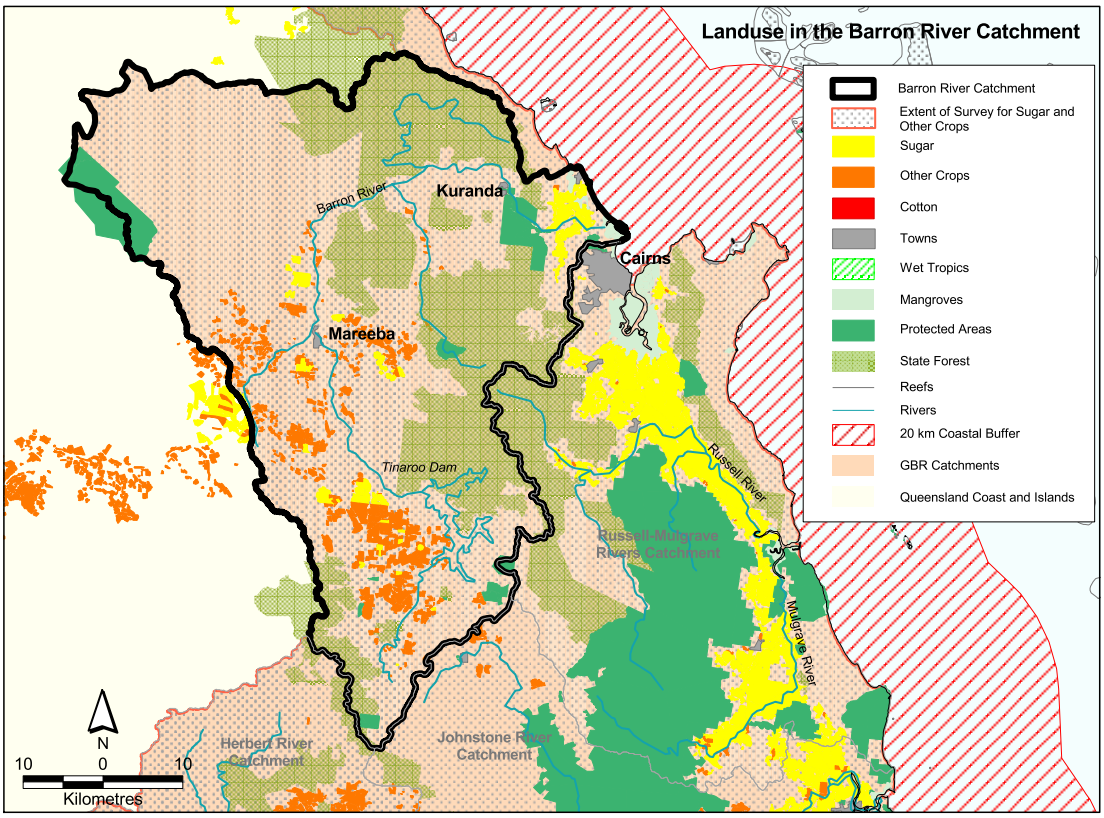
Atrazine	5756
Diuron	835
2-4D	2637
Chlorpyrifos	1858
MEMC	37

Source: *Cogle et al., 2000

Catchment Targets

	1850 T/yr	Current T/yr	Current T/ km³	ratio	2011 % Red'n	2011 T/yr Target	2011 T/ km³ Target
Sediment Export	18000	45877	180247	8.1	33	97738	120765
Total N Export	109	321	396	2.9	33	215	265
Total P Export	5	34	42	6.8	33	23	28

Data Confidence Index = 2



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The Barron River catchment covers an area of 2902 km^2 which contains the Barron River in two distinct areas, the Atherton Tableland and the coastal plain. Approximately 476 km^2 of the catchment is in the Wet Tropics World Heritage Area. State forests and timber reserves occupy 831 km^2. Grazing occupies 227 km^2. Other land uses include sugarcane 76 km^2 and 117 km^2 of horticultural land. Sediment, total nitrogen and total phosphorus exports are classified as medium risk in the Barron River catchment.

Issues in the catchment:

- Erosion of cropping lands due to high intensity rainfall is of concern.
- Weeds are a problem in some areas within the catchment.
- Significant loads of nutrient and pesticide to the receiving waters.
- Significant alteration of the river has occurred through very large extractions of sand and gravel to supply construction sites at Cairns and hydroelectricity and water storages.
- Dredging of the Barron delta has caused the stream banks to be modified and siltation to be carried out into the estuary.
- Large areas of mangrove and wetlands have been removed.
- Approximately 16% of the catchment is within protected areas.
- Extensive agricultural cropping.
- Close proximity to inshore reefal areas.
- Commercial and recreational fishery.
- The major centre for marine tourism for the Great Barrier Reef.
- Land based tourism.
- Commercial port.

Water sampling by AIMS was conducted upstream at the Kamerunga bridge and downstream at the highway bridge between 1989 and 1995. An AIMS river logger has been deployed at the Kamerunga bridge for two years.

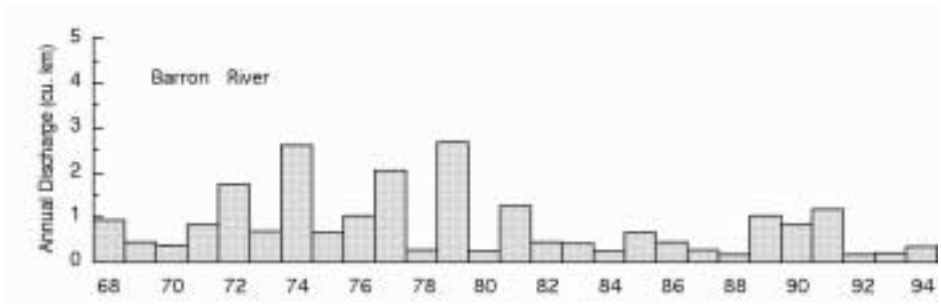

Figure 10. Water discharge patterns in the Barron River.