

# Proserpine River Catchment

## Catchment Information

### Description

<b>Area (km<sup>2</sup>)</b>	2535
<b>% Gauged</b>	13
<b>Mean Discharge Yr (km<sup>3</sup>)</b>	1.1
<b>Rainfall (mm)</b>	1360
<b>Runoff (mm/m<sup>2</sup>)</b>	426
<b>Runoff/Rainfall Ratio</b>	31

### Land Use

<b>Population</b>	16286
<b>Clearing (km<sup>2</sup>)</b>	1514
<b>% Cleared</b>	60
<b>Area under Grazing (km<sup>2</sup>)</b>	2070
<b>Area under Sugar (km<sup>2</sup>)</b>	196
<b>Area under Horticulture (km<sup>2</sup>)</b>	2.5

### Pesticide Application

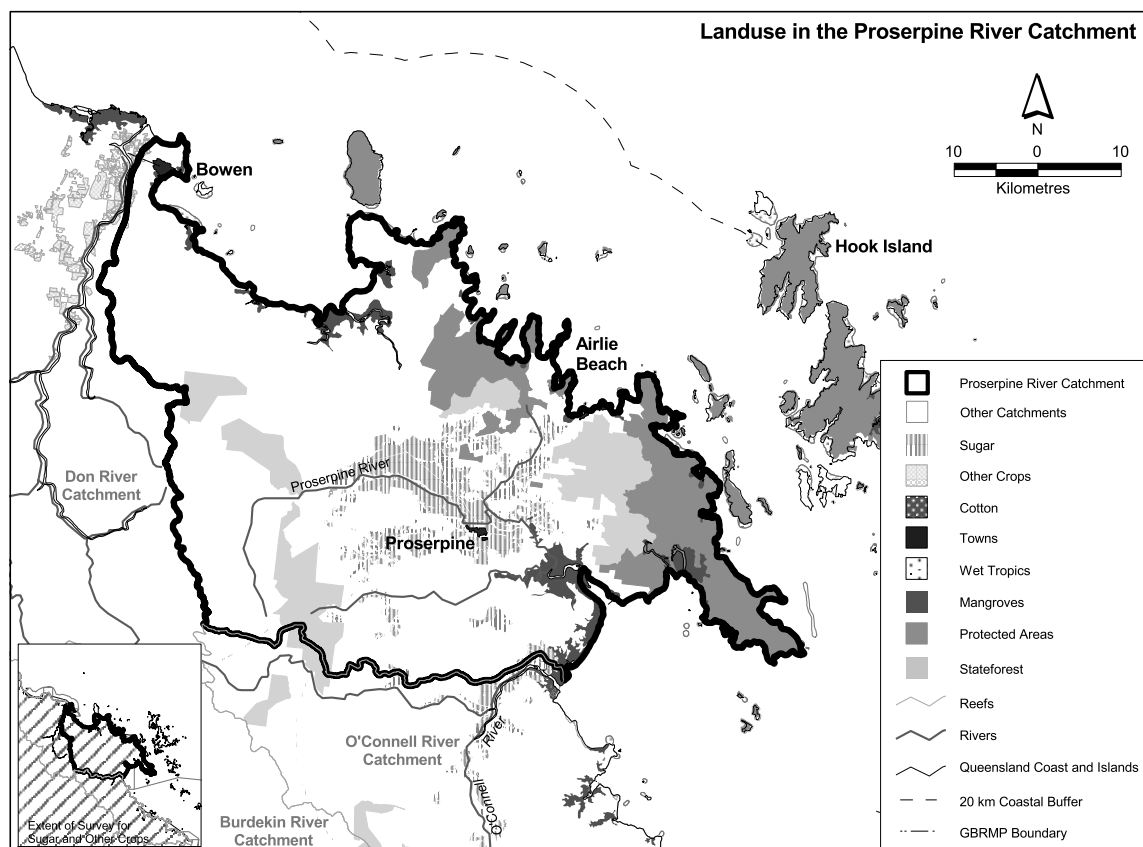
(Kg Active Ingredient/Yr)

<b>Atrazine</b>	9404
<b>Diuron</b>	9281
<b>2-4D</b>	5705
<b>Chlorpyrifos</b>	2608
<b>MEMC</b>	3

## 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>	7000	227314	210185	32.5	50	113657	105092
<b>Total N Export</b>	263	1169	1082	4.4	50	585	541
<b>Total P Export</b>	13	256	237	19.7	50	128	119

Data Confidence Index = 1



## Proserpine River Catchment

The Proserpine River catchment covers an area of 2535 km<sup>2</sup>. Grazing is the dominant land use occupying approximately 2070km<sup>2</sup>. Other land uses include 196 km<sup>2</sup> of sugarcane farming with a small area, 2.5 km<sup>2</sup>, of horticultural landuses. State forests and timber reserves occupy 232 km<sup>2</sup> and protected areas cover 317 km<sup>2</sup>. Sediment, total nitrogen and total phosphorus export are classified as high risk in the Proserpine River catchment.

### *Issues in the catchment:*

- Two types of development occur in the catchment agricultural/grazing land use and intense tourism development.
- Approximately 61% of the Catchment has been cleared mostly for grazing.
- Extensive cultivated agriculture (mostly sugar).
- High contribution of nutrient (particularly nitrates) and pesticides.
- Grazing prone to erosion.
- Approximately 13% of the catchment is within protected areas.
- Commercial and recreational fishery.
- Significant marine tourism.
- Proximity to inshore reefal areas.
- Proximity to seagrass and dugong protection areas.

Water quality studies in the late 1980's/early 1990's by James Cook University showed very high nutrient concentrations in the Proserpine River during high flow conditions.

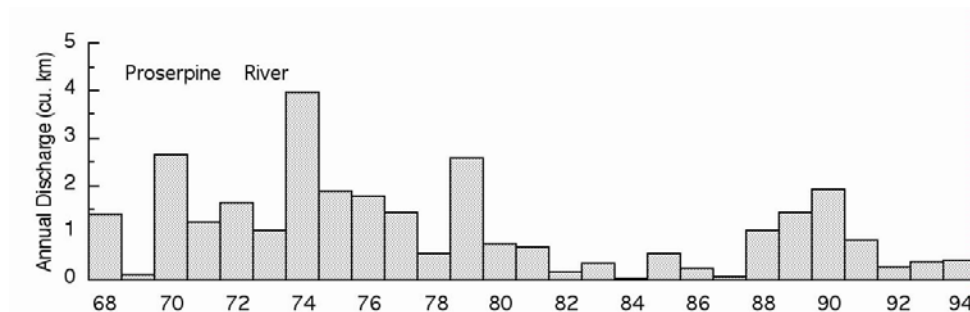


Figure 21. Water discharge patterns in the Proserpine River.