

Australian Government Bureau of Rural Sciences Bureau of Meteorology

# GILBERT RIVER



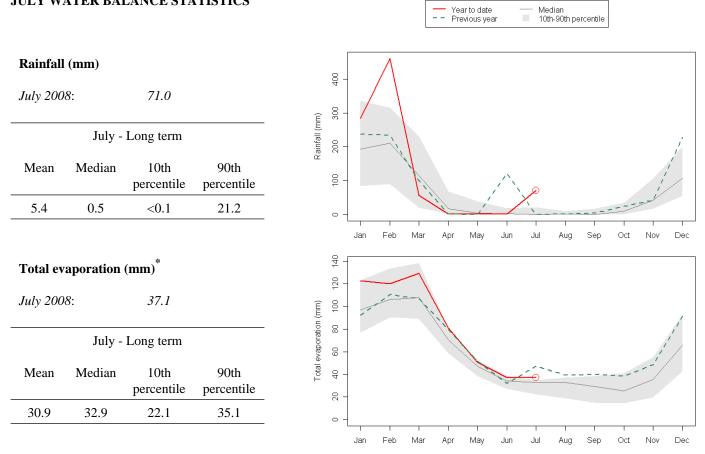


#### BACKGROUND

Population (2006): <sup>1</sup>	871			
Major Towns: <sup>1</sup>	Georgetown			
Major Rivers: <sup>2</sup>	Gilbert River, Einasleigh River, Smithburne River			
Major Water Storages: <sup>2, 3, 4</sup>	Copperfield River Gorge, Mt Hogan Water Supply Dam			
Irrigation Areas: <sup>4</sup>	No formal areas			
Climate Zone(s): <sup>5</sup>	Summer Dominant Rainfall			
July Rainfall Reliability: <sup>6</sup>	Low - Moderate			



### JULY WATER BALANCE STATISTICS<sup>7</sup>



<sup>1</sup> Australian Bureau of Statistics (2006); <sup>2</sup> Geosciences Australia (1999); <sup>3</sup> National Land and Water Resources Audit (2000); <sup>4</sup> Australian National Committee on Large Dams (2005); <sup>5</sup> Bureau of Meteorology (2005); <sup>6</sup> Bureau of Rural Sciences (2007); <sup>7</sup> Australian Water Availability Project - Bureau of Meteorology, CSIRO and Bureau of Rural Sciences (2008)

\* Plant transpiration + soil evaporation

n/a = Not applicable

# **GILBERT RIVER**

## July 2008 River Basin Summary



Upper layer soil moisture index (0-1)

July - Long term

Median

0.27

0.34

10th

percentile

0.2

90th

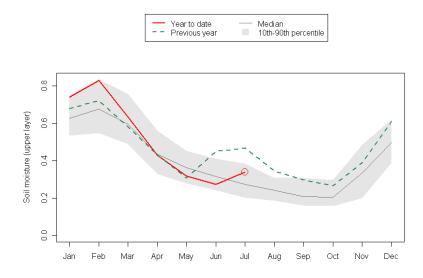
percentile

0.38

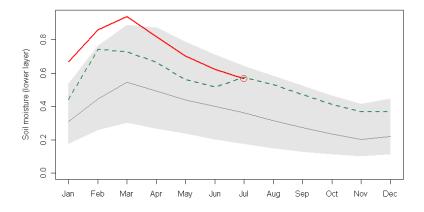
July 2008:

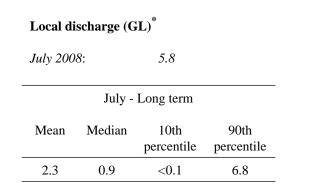
Mean

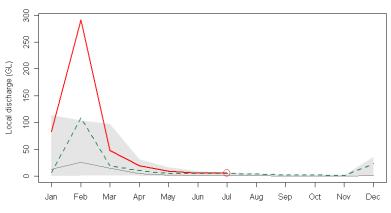
0.28



# Lower layer soil moisture index (0-1)July 2008:0.57July - Long termMeanMedian10th90thpercentilepercentile0.390.360.18

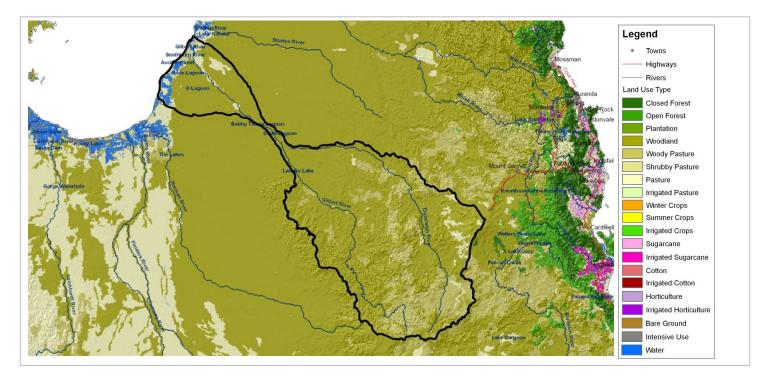






<sup>1</sup> Australian Water Availability Project - Bureau of Meteorology, CSIRO and Bureau of Rural Sciences (2008)

\* Runoff + deep drainage



# GILBERT RIVER

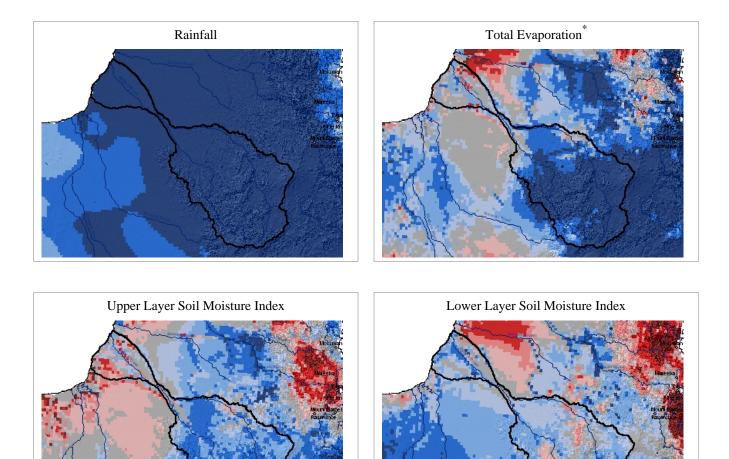
### July 2008 Modelled Water Balance

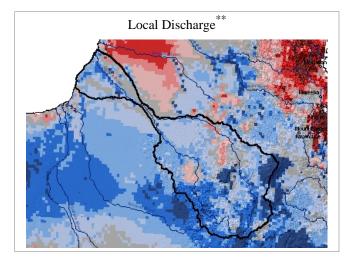
Land Use Type	<b>Area</b> sqkm	<b>Rainfall</b> percentile	<b>Total</b> <b>Evaporation</b> <i>percentile</i>	<b>Soil Moisture</b> (U <b>pper Layer</b> ) percentile	Soil Moisture (Lower Layer) percentile	Local Discharge <sup>**</sup> percentile
Open Forest	21	98	91	79	71	79
Plantation	0	-	-	-	-	-
Woodland	35,327	98	83	73	68	69
Woody Pasture	8,257	98	92	79	68	72
Shrubby Pasture	279	98	54	53	67	66
Pasture	1,858	98	72	62	71	76
Irrigated Pasture	0	-	-	-	-	-
Winter Crops	0	-	-	-	-	-
Summer / Fodder Crops	9	98	84	77	73	75
Irrigated Crops	3	98	95	84	75	80
Sugarcane	0	-	-	-	-	-
Irrigated Sugarcane	0	-	-	-	-	-
Cotton	0	-	-	-	-	-
Irrigated Cotton	0	-	-	-	-	-
Horticulture	0	-	-	-	-	-
Irrigated Horticulture	0	-	-	-	-	-
Bare Ground	42	98	65	51	60	60
Intensive Use	2	98	98	80	75	91
Water	445	98	60	46	65	65
Entire Basin	46,281	98	84	73	68	70

Data Sources: Landuse data were developed by the Bureau of Rural Sciences. They were not explicitly used in water balance modelling. Modelled water balance data (5 km grid outputs) were developed as part of the Australian Water Availability Project by the Bureau of Meteorology, CSIRO and the Bureau of Rural Sciences.

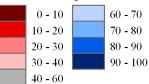
# **GILBERT RIVER**

### July 2008 Landscape Water Balance









Notes:

Data sourced from the Australian Water Availability Project (Bureau of Meteorology, CSIRO and Bureau of Rural Sciences). Percentiles based on the standard climatological reference period 1961 - 1990. \* Plant transpiration + soil evaporation; \*\* Runoff + deep drainage.