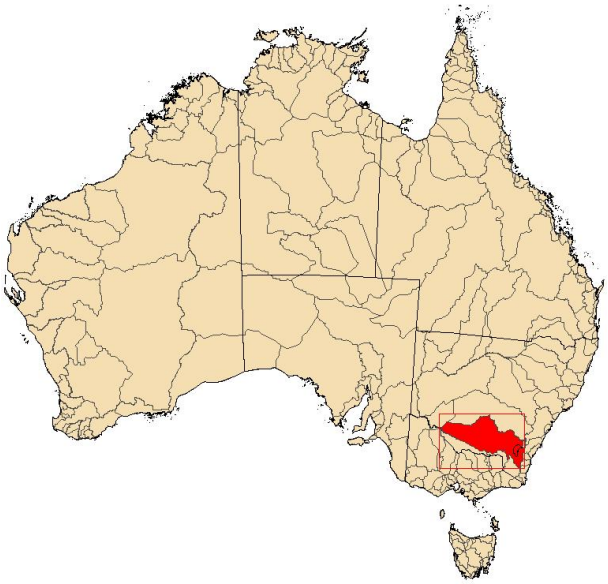
Australian Government
Bureau of Rural Sciences
Bureau of Meteorology

MURRUMBIDGEE RIVER

July 2008 River Basin Summary

CSIRO

BACKGROUND



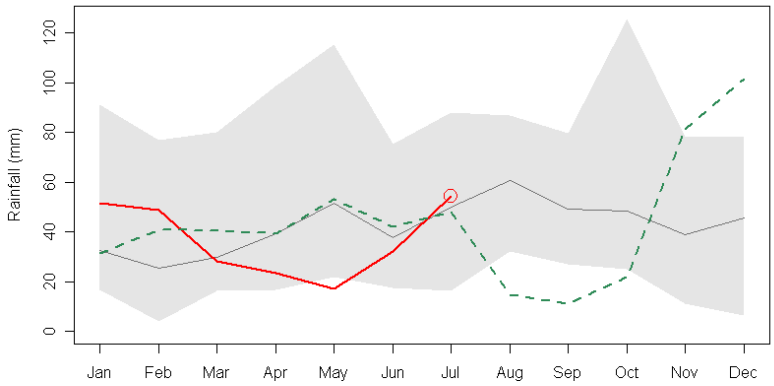
Population (2006):[1]	543,929
Major Towns:[1]	Canberra, Wagga Wagga
Major Rivers:[2]	Murray River, Murrumbidgee River, Billabong Creek
Major Water Storages:[2, 3, 4]	Blowering, Burrinjuck
Irrigation Areas:[4]	Lowbidgee, West Corurgan
Climate Zone(s):[5]	Uniform Rainfall, Summer (Low Winter) Rainfall
July Rainfall Reliability:[6]	Moderate - High

JULY WATER BALANCE STATISTICS[7]

Rainfall (mm)

July 2008: *54.4*

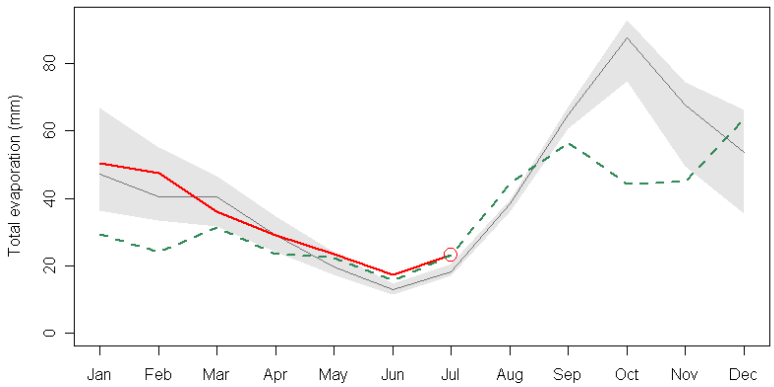
July - Long term			
Mean	Median	10th percentile	90th percentile
52.6	50.1	16.2	87.9



Total evaporation (mm)*

July 2008: *23.2*

July - Long term			
Mean	Median	10th percentile	90th percentile
18.4	18.2	17.0	20.4



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

** Plant transpiration + soil evaporation*

n/a = Not applicable

MURRUMBIDGEE RIVER

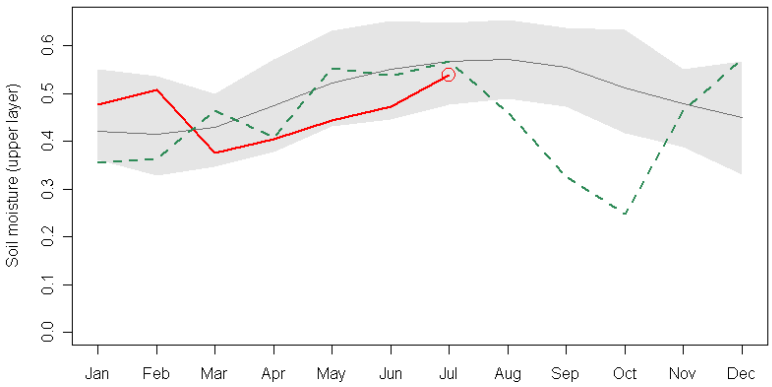
July 2008 River Basin Summary

JULY WATER BALANCE STATISTICS[1]

Upper layer soil moisture index (0-1)

July 2008: *0.54*

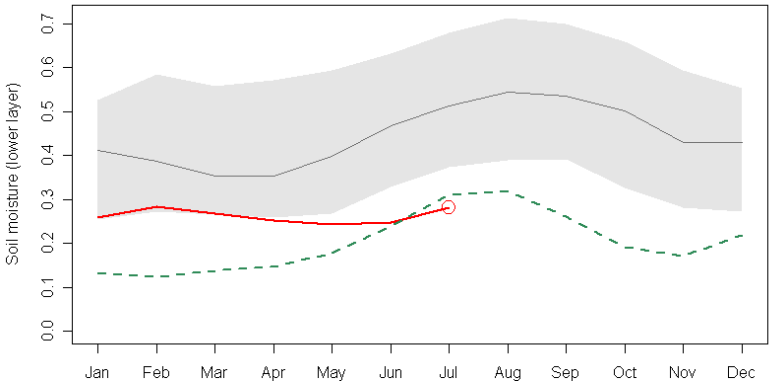
July - Long term			
Mean	Median	10th percentile	90th percentile
0.56	0.57	0.48	0.65



Lower layer soil moisture index (0-1)

July 2008: *0.28*

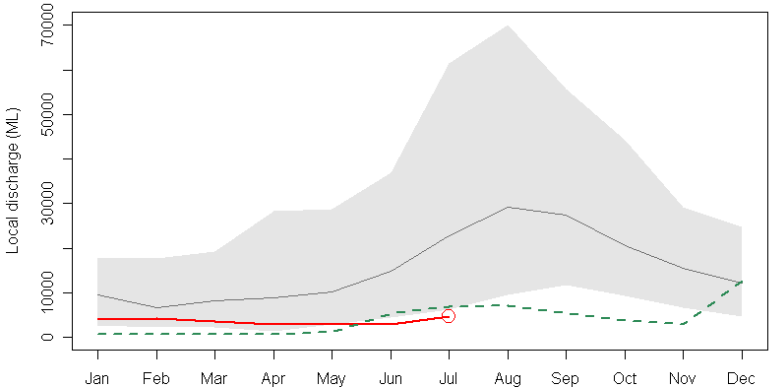
July - Long term			
Mean	Median	10th percentile	90th percentile
0.52	0.51	0.37	0.68



Local discharge (ML)*

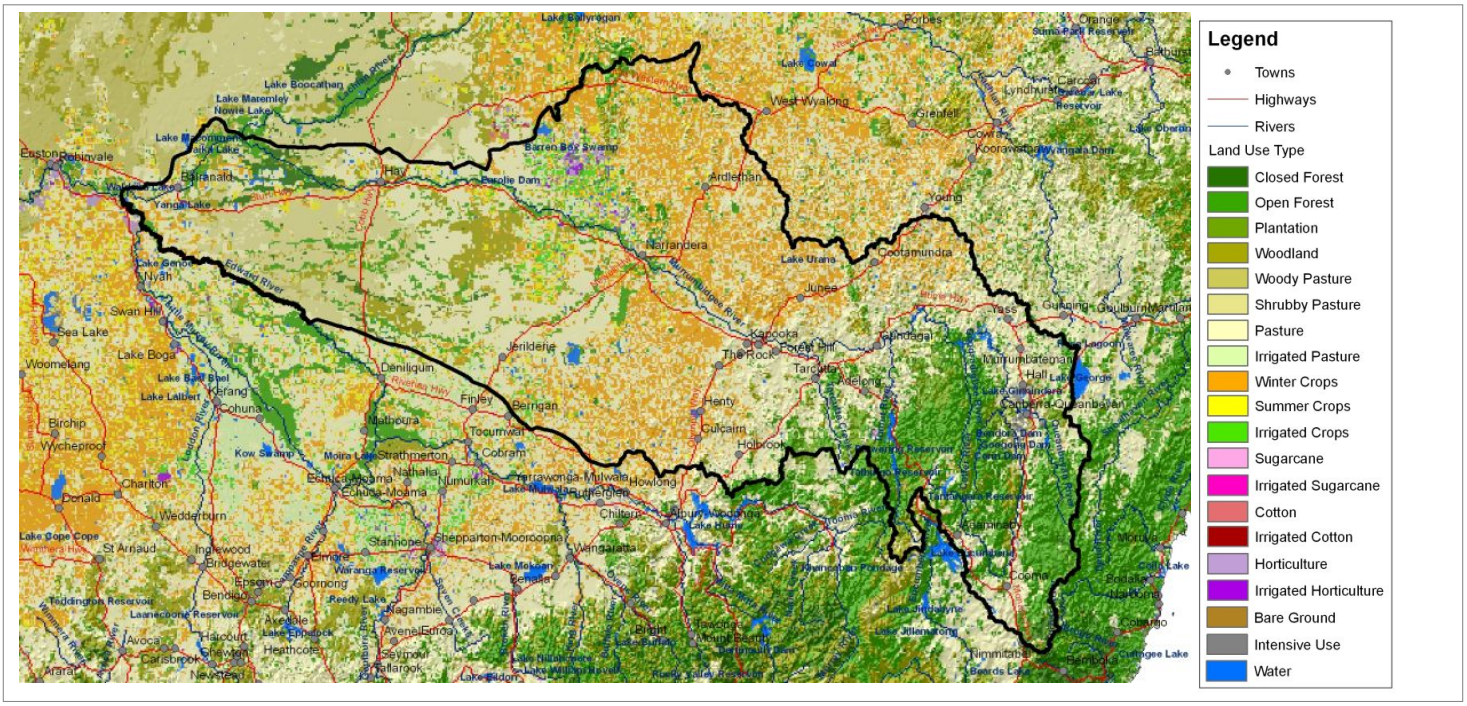
July 2008: *4,692*

July - Long term			
Mean	Median	10th percentile	90th percentile
30,196	22,754	6,118	61,381



[1] *Australian Water Availability Project - Bureau of Meteorology, CSIRO and Bureau of Rural Sciences (2008)*

* *Runoff + deep drainage*



MURRUMBIDGEE RIVER

July 2008 Modelled Water Balance

Land Use Type	Area	Rainfall	Total Evaporation *	Soil Moisture (Upper Layer)	Soil Moisture (Lower Layer)	Local Discharge **
	sqkm	*percentile*	*percentile*	*percentile*	*percentile*	*percentile*
Closed Forest	1,310	40	90	16	6	6
Open Forest	13,381	54	84	38	9	9
Plantation	1,184	60	93	47	3	3
Woodland	4,537	51	91	32	6	6
Woody Pasture	1,107	54	94	39	5	5
Shrubby Pasture	5,534	46	96	15	2	2
Pasture	34,406	54	96	44	4	4
Irrigated Pasture	1,402	55	98	42	6	6
Winter Crops	13,704	56	98	53	3	3
Summer / Fodder Crops	2,260	53	96	44	4	4
Irrigated Crops	1,141	56	98	47	7	7
Sugarcane	0	-	-	-	-	-
Irrigated Sugarcane	0	-	-	-	-	-
Cotton	2	54	98	49	2	2
Irrigated Cotton	0	-	-	-	-	-
Horticulture	330	59	97	47	8	8
Irrigated Horticulture	158	60	98	48	9	9
Bare Ground	54	52	93	37	4	4
Intensive Use	312	62	96	43	6	6
Water	819	52	93	39	5	5
Entire Basin	**81,641**	**54**	**94**	**41**	**5**	**5**

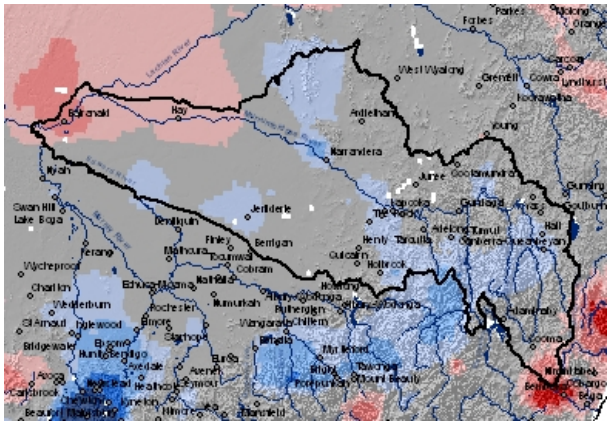
Data Sources: Landuse data were developed by the Bureau of Rural Sciences. They were not explicitly used in water balance modelling. Modelled water balance data (5 km grid outputs) were developed as part of the Australian Water Availability Project by the Bureau of Meteorology, CSIRO and the Bureau of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

* *Plant transpiration + soil evaporation;* ** *Runoff + deep drainage*

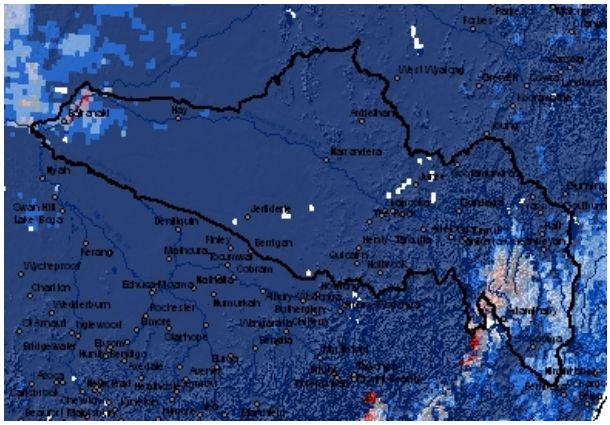
MURRUMBIDGEE RIVER

July 2008 Landscape Water Balance

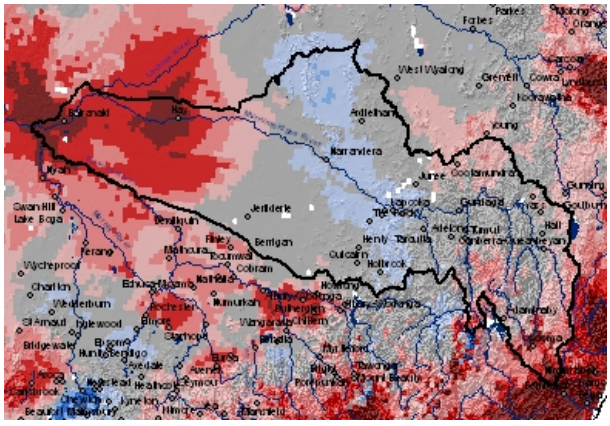
Rainfall



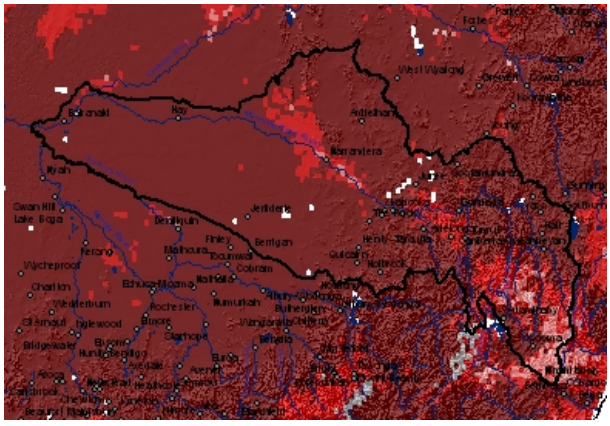
Total Evaporation*



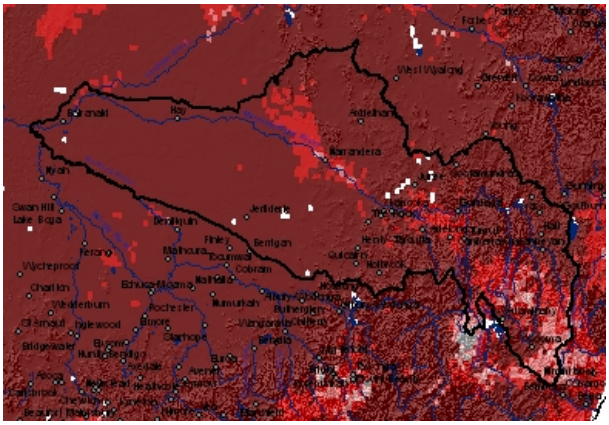
Upper Layer Soil Moisture Index



Lower Layer Soil Moisture Index



Local Discharge**



Percentile Ranking

0 - 10	60 - 70
10 - 20	70 - 80
20 - 30	80 - 90
30 - 40	90 - 100
40 - 60	

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.*