



FITZROY RIVER (QLD)

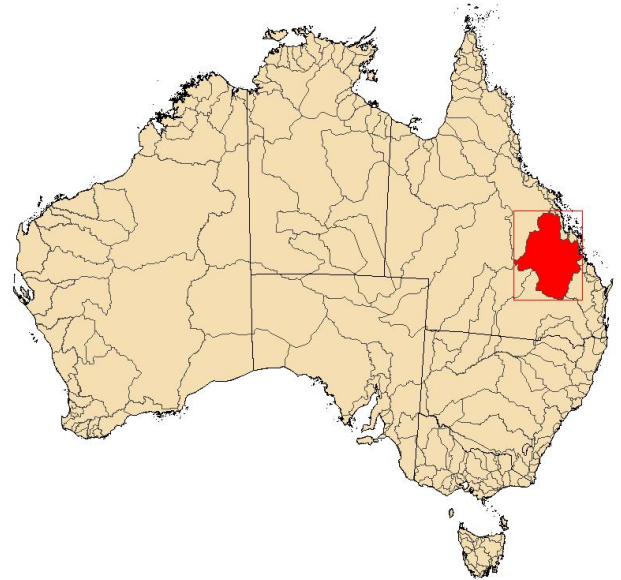
River Basin Summary



Population (2006):¹ 144,464
Major Towns:¹ Rockhampton, Emerald
Major Rivers:² Nogoa River, Isaac River, Dawson River

Surface Water Storages:^{2, 3, 4}
 Largest known storages: Fairbairn, Callide
 No. of storages: 24
 Storage capacity (ML): 1,810,655

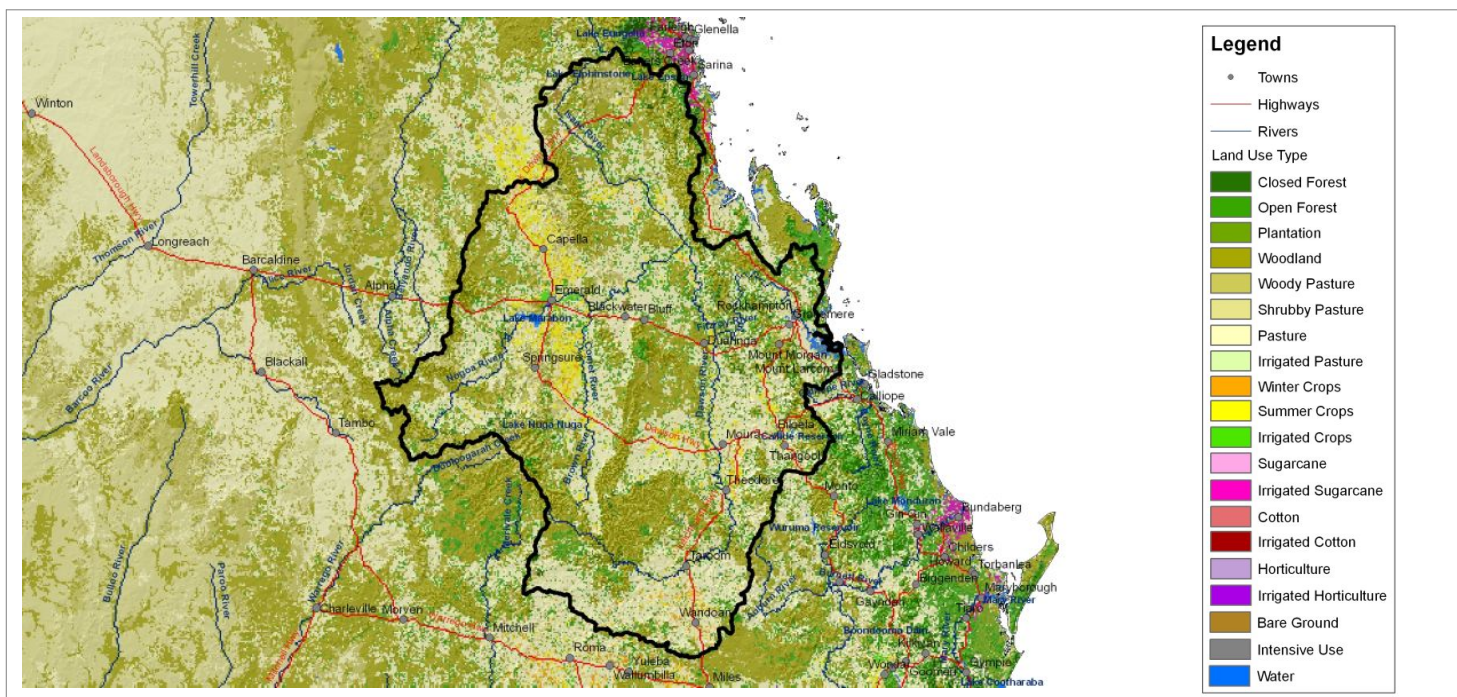
Licensed Irrigation:
 Largest areas:³ Dawson, Emerald
 Number of licenses:⁵ 538
 Average annual allocation (ML):⁵
 Since 2001-02: 242,057
 Minimum: 220,891
 Maximum: 265,693
 Average annual diversion (ML):⁵
 Since 2001-02: 275,029
 Minimum: 227,653
 Maximum: 346,337



Groundwater:
 Number of production bores:⁷ 11,850
 Recharge rate (mm/year):⁸ Data being compiled
 Yield (ML/year):⁸ Data being compiled
 Extraction (ML/year):⁷ Data being compiled

Rainfall Reliability:
 Chance of receiving average seasonal rainfall:⁸ Low (4 to 4.5 yrs in 10)

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 (2004); ⁵ Australian National Committee - International Commission on Irrigation and Drainage (2005); ⁶ Murray Darling Basin Commission (2005); ⁷ State Agencies (2006); ⁸ Bureau of Rural Sciences (2007); ^x Incomplete



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Modelled Annual Water Balance

Land Use Type	Area (sqkm)	Precipitation (ML)	Runoff (ML)	ET (ML)	Deep drainage (ML)	Irrigation (ML)	Return flow (ML)
Closed Forest	2,468	1,988,844	103,926	1,854,974	29,943	0	0
Open Forest	18,392	13,163,990	625,845	12,340,624	197,521	0	0
Plantation	10	13,853	2,025	11,568	260	0	0
Woodland	46,648	32,812,629	2,887,560	29,403,751	521,318	0	0
Woody Pasture	8,102	5,436,222	804,313	4,551,264	80,645	0	0
Shrubby Pasture	122	83,056	12,578	69,335	1,143	0	0
Pasture	56,588	37,901,980	7,226,437	30,136,619	538,925	0	0
Irrigated Pasture	10	6,673	1,259	5,326	88	8,980	2,314
Winter Crops	1,773	1,152,665	211,646	893,943	47,076	0	0
Summer / Fodder Crops	6,425	4,209,912	570,036	3,471,391	168,485	0	0
Irrigated Crops	681	453,985	63,499	372,206	18,280	606,957	140,847
Sugarcane	0	0	0	0	0	0	0
Irrigated Sugarcane	0	0	0	0	0	0	0
Cotton	3	1,876	238	1,564	74	0	0
Irrigated Cotton	0	0	0	0	0	0	0
Horticulture	8	8,606	1,288	7,186	132	0	0
Irrigated Horticulture	20	14,284	1,064	13,023	197	16,546	1,674
Bare Ground	585	391,125	122,847	262,758	5,520	0	0
Intensive Use	137	102,585	27,490	73,644	1,451	0	0
Water	663	512,402	152,615	352,771	7,016	0	0
Entire Basin	142,679	98,293,045	12,814,665	83,860,304	1,618,076	632,482	144,835
NLWRA¹	142,645	n/a	5,380,000	n/a	n/a	383,066	n/a
AWRC²	143,000	n/a	7,130,000	n/a	n/a	n/a	n/a

Data Sources: Land use data sourced from the Bureau of Rural Sciences. Precipitation data sourced from the Australian Bureau of Meteorology. All other data derived from the Bureau of Rural Sciences' steady-state annual water balance model.

¹National Land and Water Resources Audit (2000); ²Australian Water Resource Council (1987); n/a = Not available

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Average Annual Water Resource Summary (GL)

Water Supply

Runoff: ¹	12,815
Transfers: ^{1, 2}	0
Groundwater Sustainable Yield: ³	253
Total:	13,068

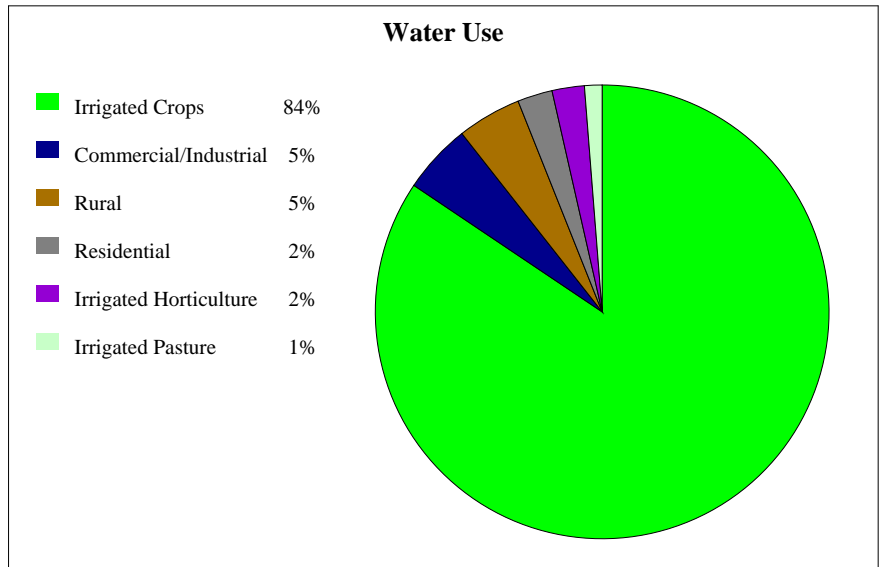
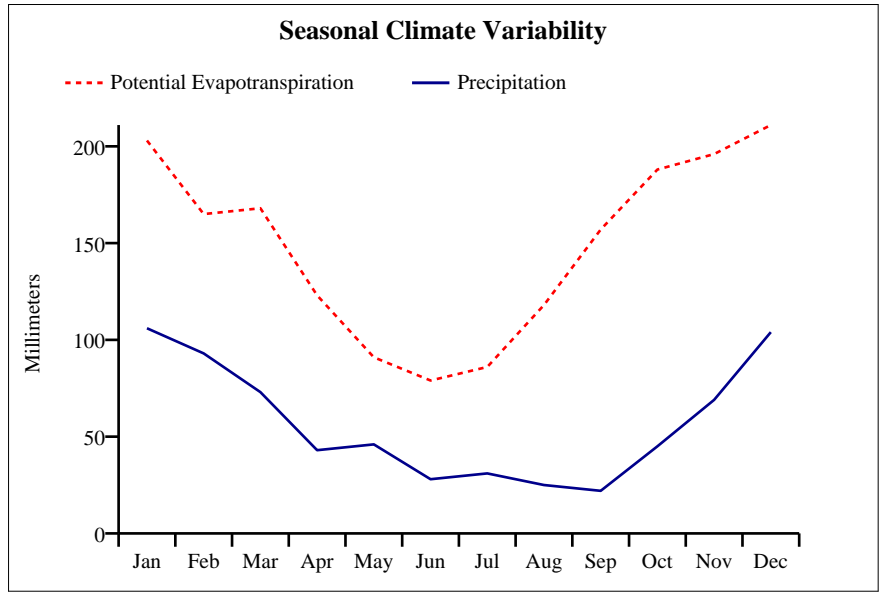
Water Use

Irrigation: ¹	632
Residential: ¹	18
Commercial/Industrial: ³	36
Rural (Stock/Domestic): ³	33
Transfers: ^{1, 2}	0
Total:	719

Total Use (% of Supply): 6%

River Flows

Retained in Storage:~	91
Environmental Flows:	Data being compiled
Transmission Losses: ^	3,204
Return Flows: ¹	156
Outflow:[@]	9,209



¹Bureau of Rural Sciences (2007); ²Australian Water Resource Council (1987); ³National Land and Water Resources Audit (2000)

#Groundwater only; * Surface water only; ~ 5% of total storage; ^ 25% of runoff; x:incomplete

@ Surface water (supply - use - retention in storage - transmission losses + environmental flows + return flows)

n/a = Not available