



Upper Serpentine River

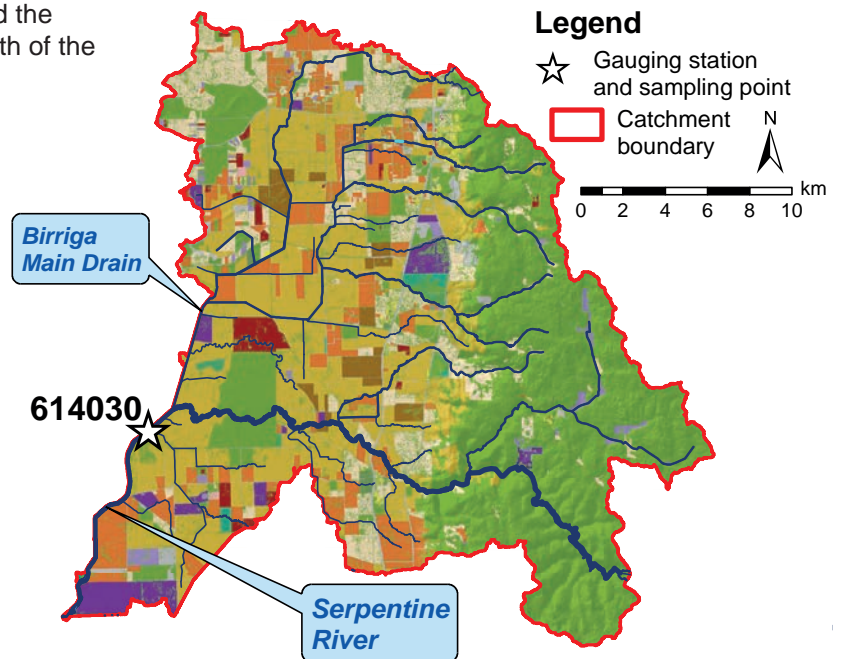
The upper Serpentine catchment comprises land draining to the Serpentine River between Lake Amarillo and the Serpentine Dam. Birriga Main Drain drains the north of the catchment.

The Serpentine River sampling site at Dog Hill (614030) is one of three long-term monitoring sites within the Peel-Harvey catchment. Flow has been measured since 1979 and nutrients monitored from 1983.

Before 2002 the Serpentine River flowed year-round. Since 2002 the river has ceased to flow from around January to March with the exception of 2009 when it flowed year-round.

A mixture of soil types is found within the catchment and only a very small percentage is subject to flooding (5%). More than half the catchment has a low or very low risk of phosphorus leaching to the waterways (62%).

To the Darling Scarp's east the catchment remains relatively undisturbed. West of the scarp the land has been cleared, mostly for agriculture (e.g. stock grazing) and lifestyle blocks. More intensive land uses such as sheep feedlots, poultry farms and piggeries are also present.



Serpentine River at Dog Hill – August 2001

Land use classification (2006)	Area	
	(km ²)	(%)
Animal keeping – non-farming (horses)	47	9.3
Cattle for beef (predominantly)	120	24
Cattle for dairy	8.6	1.7
Conservation and natural	235	47
Horticulture	5.2	1.0
Industry, manufacturing and transport	17	3.4
Intensive animal use	6.6	1.3
Lifestyle block	43	8.6
Mixed grazing	13	2.5
Offices, commercial and education	0.34	0.07
Plantation	2.5	0.50
Recreation	1.4	0.28
Residential	2.1	0.42
Viticulture	0.36	0.07
Total	502	100

Nutrient summary: median concentrations, loads and status classification at 614030

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Annual flow (GL)	95	17	31	59	34	63	9.7	35	49	51	7.7	46	16	38
TN median (mg/L)	0.84	0.91	0.75	1.1	0.86	1.2	0.75	1.0	1.1	0.70	0.76	0.95	0.84	1.1
TP median (mg/L)	0.09	0.07	0.08	0.19	0.11	0.20	0.10	0.13	0.18	0.09	0.08	0.14	0.09	0.14
TN load (t/year)	202	30	59	120	68	129	19	80	103	107	20	104	21	67
TP load (t/year)	40	4.8	10	21	10	24	2.7	12	16	18	2.4	17	2.8	10

Status classification: Low Moderate High Very high

Status reported for three-year period end (i.e. 2011–13 reported in 2013)

TN = total nitrogen TP = total phosphorus

* best estimate using available data