



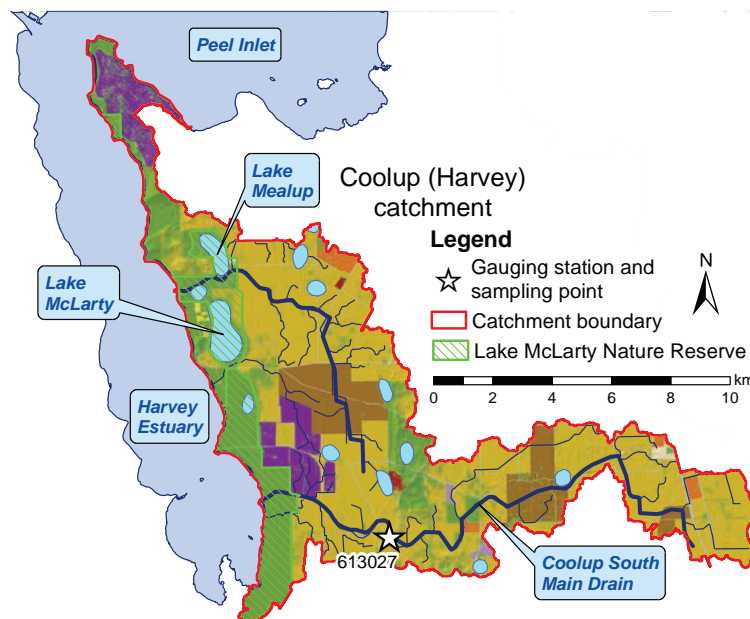
# Coolup South Main Drain

The Coolup (Harvey) catchment drains to the Harvey Estuary. There are two main waterways, Coolup South Main Drain which drains the southern portion of the catchment and an unnamed watercourse which drains the north. Several lakes and wetlands are located within the catchment, including Lake Mealup and Lake McLarty which lie within the Ramsar listed Peel-Yalgorup system.

Water quality is monitored at the gauging station on Coolup South Main Drain at Yakaboon on the Old Bunbury Road (613027). No water quality samples were collected between July 2001 and June 2005.

Flow has been measured at the gauging station since 1990, with the exception of an approximately six year period from March 1999 to June 2005. The drain ceased to flow for extended periods between November and June, however March and April were the only months that ceased to flow every year (2006–11).

The soils in the catchment are mostly sandy, including areas of leached sands and limestone gravel. While only a small area of the catchment is subject to inundation (10%) over half has a high or very high risk of phosphorus leaching to waterways (56%).



Most of the catchment has been cleared, predominantly for agriculture such as stock grazing. A narrow strip of undisturbed vegetation remains to the east of the Harvey Estuary (Lake McLarty Nature Reserve). Two piggeries are also located within the catchment.

Land use classification (2006)	Area	
	(km <sup>2</sup> )	(%)
Animal keeping – non-farming (horses)	1.3	1.2
Cattle for beef (predominantly)	57	50
Cattle for dairy	11	9.4
Conservation and natural	34	30
Horticulture	0.34	0.30
Industry, manufacturing and transport	2.0	1.8
Intensive animal use	0.33	0.29
Lifestyle block	0.33	0.29
Mixed grazing	7.6	6.7
Residential	0.20	0.18
<b>Total</b>	<b>113</b>	<b>100</b>



Coolup South Main Drain 613027 – May 2005

## Nutrient summary: median concentrations, loads and status classification at 613027

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Annual flow (GL)	2.7							5.4*	0.27	2.9	4.4	2.7	0.39	2.1
TN median (mg/L)	1.5	1.7	1.6	1.6				1.8	1.7	2.6	2.2	1.8	1.7	2.1
TP median (mg/L)	0.36	0.36	0.30	0.24				0.29	0.25	0.50	0.31	0.23	0.12	0.31
TN load (t/year)	5.9							13*	0.54	7.8	10	6.1	0.80	4.8
TP load (t/year)	1.1							2.2*	0.07	1.2	1.9	0.93	0.12	0.79

Status classification: Low (Green), Moderate (Yellow), High (Orange), Very high (Purple)

Status reported for three-year period end (i.e. 1996 98 reported in 1998)  
TN = total nitrogen TP = total phosphorus

\* best estimate using available data