



# 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.

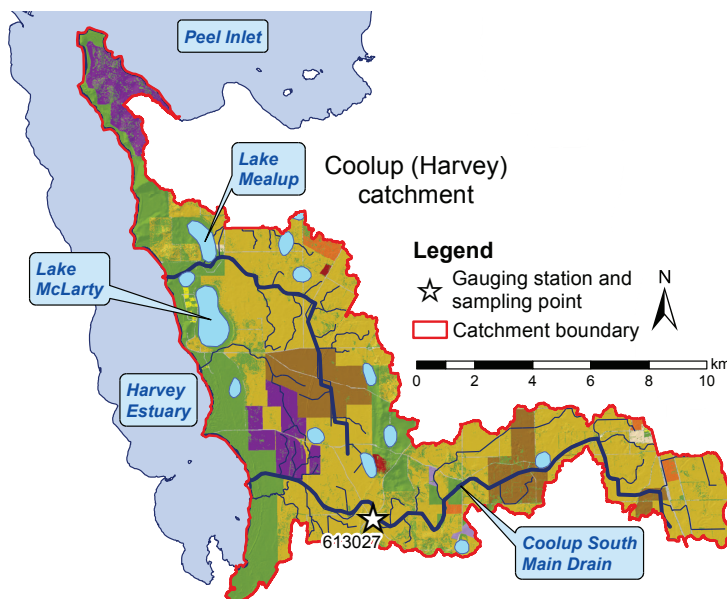
Water quality is monitored in Coolup South Main Drain at the gauging station at Yakaboon on the Old Bunbury Road (613027).

Flow was measured at the gauging station from July 2005. The drain stopped flowing for extended periods between November and June, March and April were the only months when flow stopped every year (2006–13).

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 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	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Annual flow (GL)	-	-	-	5.4*	0.27	2.9	4.4	2.7	0.39	2.1	1.5	3.6	2.1	0.23
TN median (mg/L)	-	-	-	1.8	1.7	2.6	2.2	1.8	1.7	2.1	1.8	2.2	2.1	2.2
TP median (mg/L)	-	-	-	0.29	0.25	0.50	0.31	0.23	0.12	0.31	0.25	0.33	0.31	0.20
TN load (t/year)	-	-	-	12*	0.52	6.8	9.3	6.1	0.80	4.7	3.2	8.1	4.6	0.45
TP load (t/year)	-	-	-	1.9*	0.07	1.0	1.5	0.90	0.11	0.69	0.44	1.2	0.66	0.06

Status classification:  Low  Moderate  High  Very high

Status reported for three-year period end (i.e. 2012–14 reported in 2014)

TN = total nitrogen TP = total phosphorus

\* Best estimate using available data (- not applicable)