Department of **Water**
Department of **Parks and Wildlife**
GOVERNMENT OF WESTERN AUSTRALIA

Yule Brook

Yule Brook is a natural watercourse at its headwaters but turns into a network of deeply incised drains in its lower reaches that combine to form the Yule Brook Main Drain. The drain discharges into the Canning River upstream of Kent Street Weir, opposite Hester Park in Beckenham.

Most of the Yule Brook catchment is highly modified. It has a diversity of urban uses such as light to medium industry and high-density residential developments, as well as agricultural uses such as horticulture and poultry. The hills suburb of Lesmurdie is located in the upper catchment.

The steep section in the middle catchment on the Darling Scarp retains areas of heath vegetation, with pockets of wandoo, marri and jarrah forest, and includes Lesmurdie Falls National Park. Apart from this small area, little remnant vegetation remains in the catchment.

The soils in the lower Yule Brook catchment are a combination of permeable Southern River sands and Guildford yellow, duplex soils. The upper catchment to the east consists of the sandy gravels, shallow red and yellow earths and rocky outcrops common on the Darling Scarp. In low-lying areas, the drains of the Yule Brook catchment intercept the groundwater.

Water quality is monitored at a site near Mills Park, at the lower end of the catchment. This site is positioned to indicate the nutrients leaving the catchment and flowing into the Canning River, so the data do not accurately represent nutrient concentrations in upstream areas. The Water Corporation operated a flow gauging station at this site until mid 2012 when data collection ceased.


Photo: Lynette Galvin

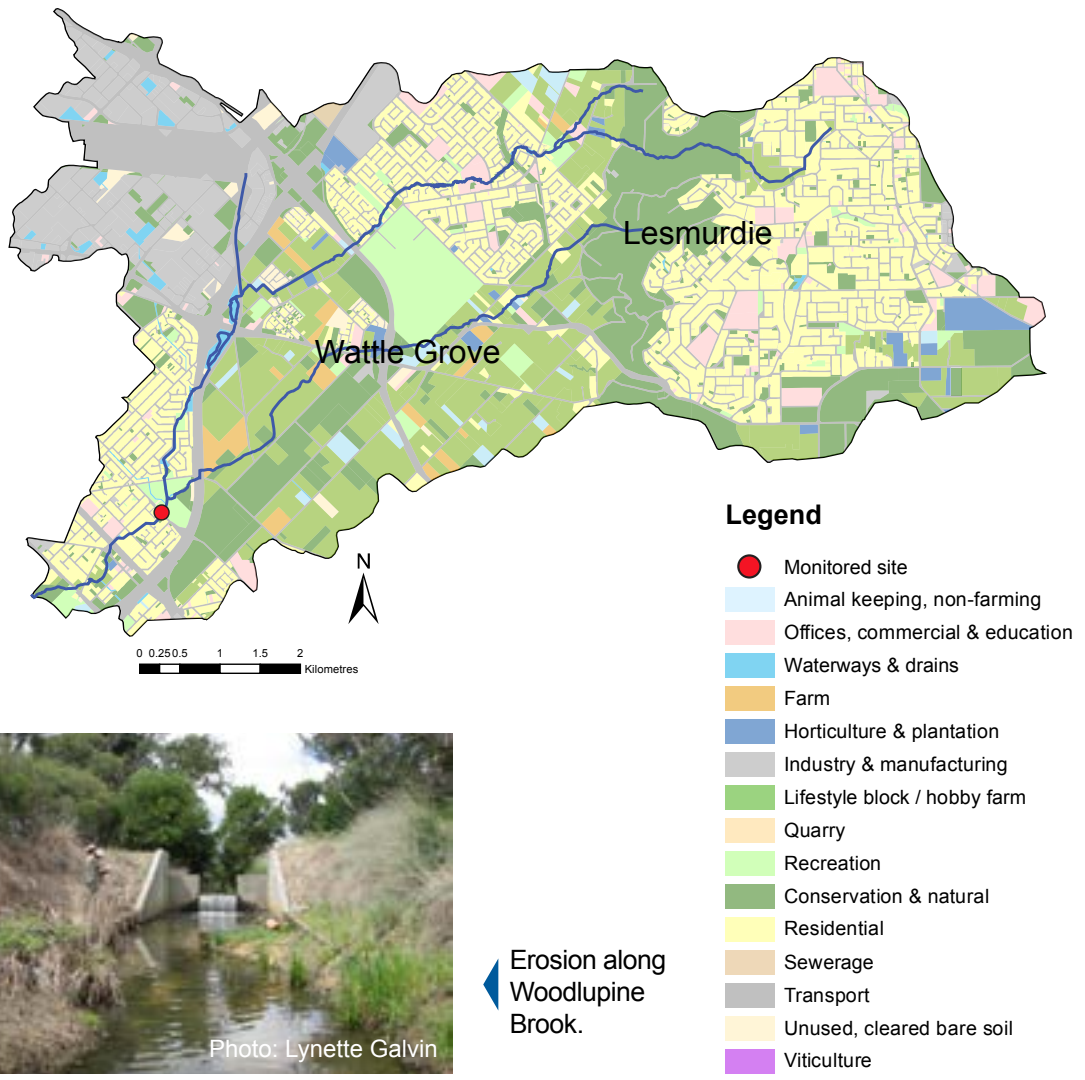

Photo: Lynette Galvin

Erosion along Woodlupine Brook.

Yule Brook – facts and figures

Length	~ 6.8 km (length of Yule Brook); ~ 31.5 km (total length of Water Corporation drains)
Average rainfall	~ 800 mm per year
Gauging station near monitored site	Site number 616042
Catchment area	55 km^2 (total) 53 km^2 (monitored)
River flow	Ephemeral No major water supply dams in catchment
Average annual flow	not able to calculate
Main land uses	Horticulture, intensive livestock agistment, residential areas, light and medium industry and remnant vegetation

Nutrient Summary: concentrations, loads and HRAP targets

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Annual flow (GL)	7.5	10.8	6.9	11.4	3.8	7.9	10.4	8.9	3.4	9.3			
TN median (mg/L)	0.83#	1.10	0.91#	1.00	0.88	1.05#	0.90	0.83	0.76	0.99	0.66	1.10#	1.00
TP median (mg/L)	0.064	0.080	0.093	0.069	0.155#	0.115#	0.070	0.100	0.093	0.087	0.072	0.096	0.094
TN load (t/yr)	7.59	11.90	7.03	12.59	3.68	8.40	11.31	9.57	3.39	10.07			
TP load (t/yr)	0.59	0.99	0.53	1.04	0.33	0.67	0.94	0.76	0.29	0.81			

TN short term target = 2.0 mg/L TN long term target = 1.0 mg/L TP short term target = 0.2 mg/L TP long term target = 0.1 mg/L

insufficient data to test target | failing both short and long-term target | passing short but failing long-term target | passing both short and long-term target

* best estimate using available data. # Statistical tests that account for the number of samples and large data variability are used for testing against targets on three years of winter data. Thus the annual median value can be above the target even when the site passes the target (or below the target when the site fails).

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