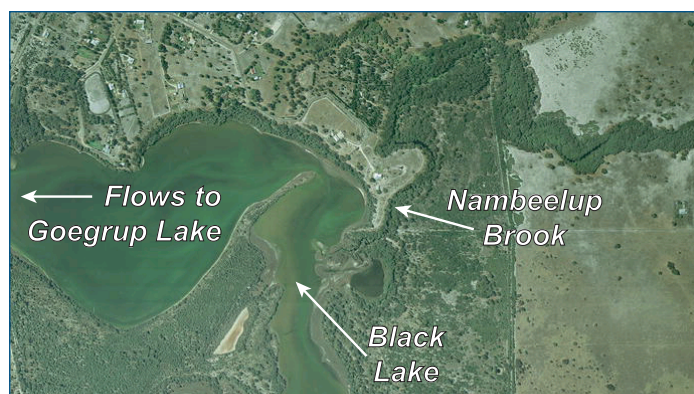




Nambeelup Brook

The entire Nambeelup Brook catchment is on the Swan Coastal Plain. The brook drains into Black Lake which feeds into Goegrup Lake (one of the Serpentine Lakes) and hence the Serpentine River. The *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992* lists Black Lake as having high conservation significance.



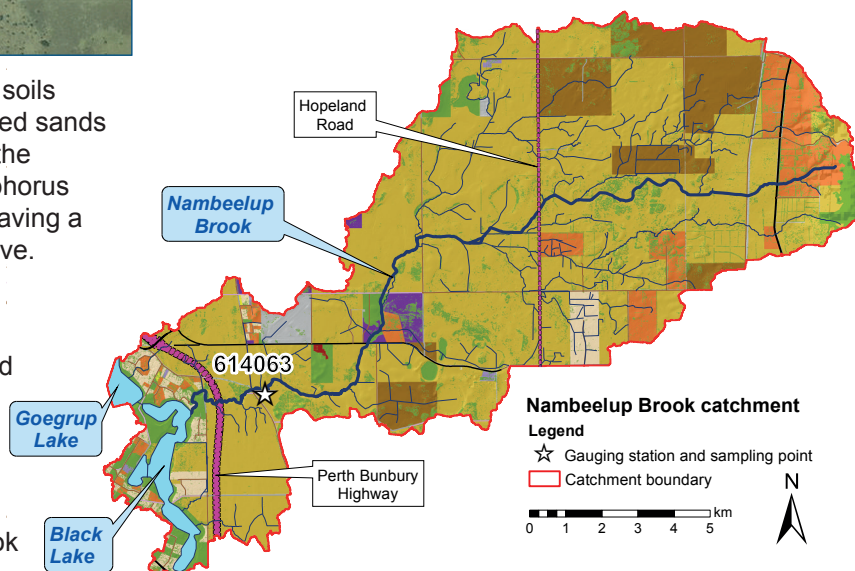
To the west of Hopeland Road the catchment's soils consist of sandy and clayey swamps and leached sands with nearly 20% subject to inundation. Most of the catchment has a high or very high risk of phosphorus loss to waterways with 83% of the catchment having a phosphorus retention index (PRI) of less than five.

Water quality has been monitored near the catchment outlet, at the gauging station at Kielman (614063), to the west of Paterson Road since 1990.

Flow has been monitored since March 2005. Nambeelup Brook was consistently dry each March, although flow can stop from around November to June. The longest period the Brook stopped flowing for was 218 days, between November 2010 and June 2011.

The Nambeelup Brook catchment had the second-highest percentage of agricultural land ('cattle for beef and dairy') of the Peel-Harvey sub-catchments. It had the lowest natural vegetation coverage (km² and %) of the catchments draining to the Serpentine River, and the second-lowest percentage within the Peel-Harvey catchment.

Land use classification (2006)	Area	
	(km ²)	(%)
Animal keeping – non-farming (horses)	9.0	6.3
Cattle for beef (predominantly)	89	62
Cattle for dairy	14	10
Conservation and natural	21	15
Horticulture	0.20	0.14
Industry, manufacturing and transport	4.2	2.9
Intensive animal use	0.09	0.06
Lifestyle block	4.1	2.8
Mixed grazing	1.3	0.88
Offices, commercial and education	0.01	<0.01
Recreation	0.01	<0.01
Residential	0.04	0.03
Total	143	100



In 2015 Nambeelup Brook had the second-highest median TN and TP concentrations of the 13 sites sampled in the Peel-Harvey catchment.

Nutrient summary: median concentrations, loads and status classification at 614063

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Annual flow (GL)	-	-	-	20*	3.5	11	13	15	1.5	9.2	6.1	9.8	9.7	1.7
TN median (mg/L)	2.6	2.8	2.8	2.7	2.4	3.1	3.0	3.1	3.0	3.4	3.4	3.8	3.7	3.6
TP median (mg/L)	0.63	0.73	0.69	0.60	0.61	0.59	0.58	0.46	0.49	0.61	0.51	0.65	0.60	0.52
TN load (t/year)	-	-	-	55*	10	35	35	38	4.8	27	19	30	30	5.6
TP load (t/year)	-	-	-	12*	2.1	7.2	7.9	8.6	0.87	5.7	3.8	6.1	5.9	0.98

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)