Department of **Water and Environmental Regulation**
Department of **Biodiversity, Conservation and Attractions**
GOVERNMENT OF WESTERN AUSTRALIA

South Perth

The South Perth catchment consists of numerous drains which are almost exclusively piped. They discharge to a variety of receiving water bodies including; lakes, compensating basins, infiltration basins, swales, soakwells, public open space reserves and both the Swan and Canning estuaries (there are more than 50 discharge points to the estuaries).

Development in the catchment occurred more slowly than in Perth due to the relative inaccessibility of the area until the construction of the Causeway in the 1840s. The fertile soils along the river were used for agriculture; predominantly dairy cows and market gardening. The market gardens remained in place until the 1950s. Over time the catchment has been converted to urban landuse though there are small pockets of remnant vegetation still present. Belmont Park Racecourse and the Burswood entertainment complex both lie within the South Perth catchment.

The soils in the catchment consist of leached sands, namely Spearwood and Bassendean sands. These sands have poor nutrient-retention capacities so any nutrients applied as fertiliser are quickly washed into groundwater when water is applied.

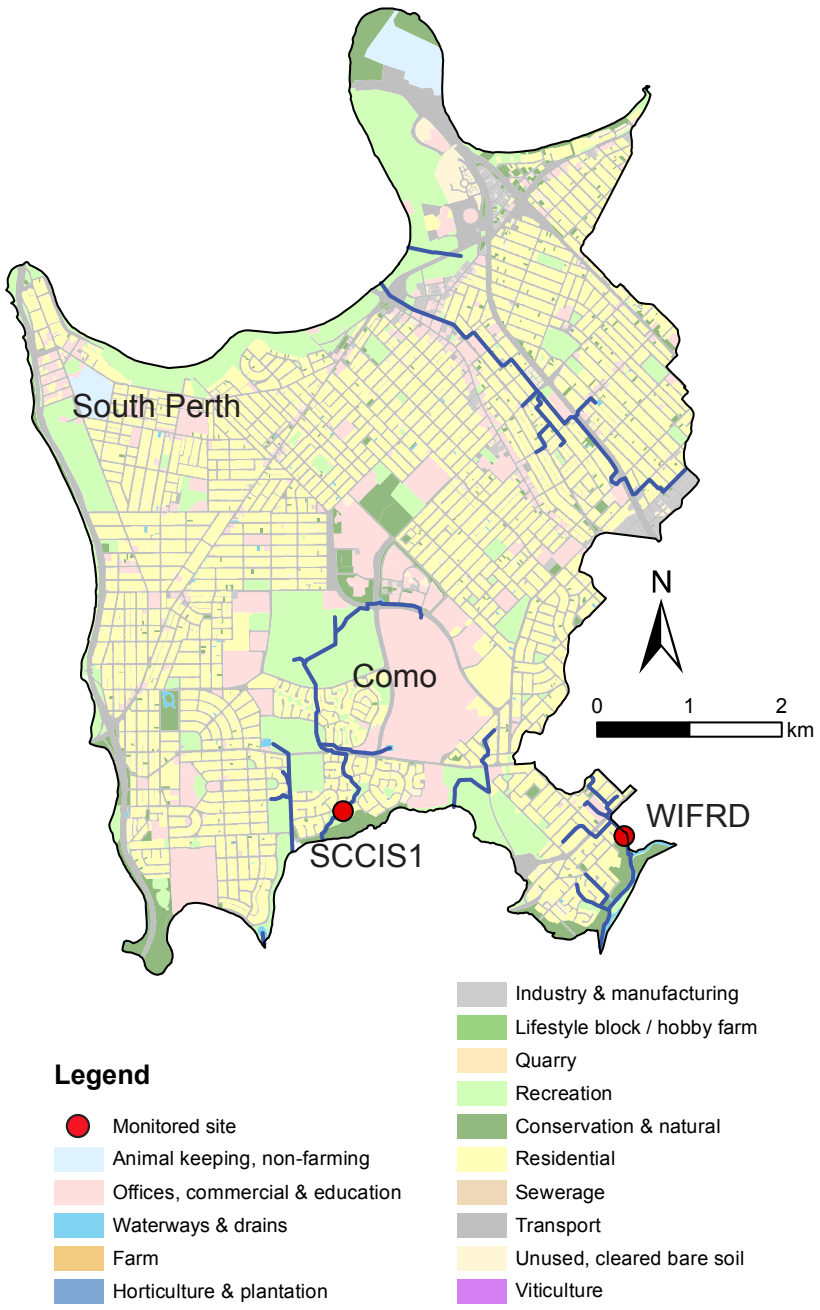
Water quality is monitored fortnightly at two points in the catchment, one on Wilson Main Drain (WIFRD), Wilson and one on an open drain near Galway Grove (SCCIS1), Waterford. These sites give an indication of the nutrients leaving these subcatchments but do not represent upstream areas or other subcatchments in South Perth.

South Perth – facts and figures

Average rainfall (2013–17)	~ 730 mm per year in the (Perth metro)
Catchment area	40 km^2
Per cent cleared area (2005)	94% (total catchment)
River flow	Flows year round
Main land uses (2005)	Residential and associated infrastructure (roads) (total catchment)

The sampling site near Galway Road (SCCIS1), August 2017.

The sampling site on Wilson Main Drain (WIFRD), August 2017.



Nutrient Summary: concentrations, rainfall and targets

Year	Site	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Annual rainfall (mm)	009225	703.0	807.8	607.2	503.8	860.8	608.2	782.4	674.4	617.8	715.8	854.0
TN median (mg/L)	SCCIS1	0.77			0.81	0.92	0.55	0.64	0.90	0.69	0.80	0.84
TP median (mg/L)	SCCIS1	0.019			0.027	0.029	0.016	0.016	0.019	0.016	0.017	0.018
TN median (mg/L)	WIFRD						1.40	1.50	1.50	1.50	1.70	1.40
TP median (mg/L)	WIFRD						0.130	0.115	0.190#	0.150#	0.155	0.180

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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