

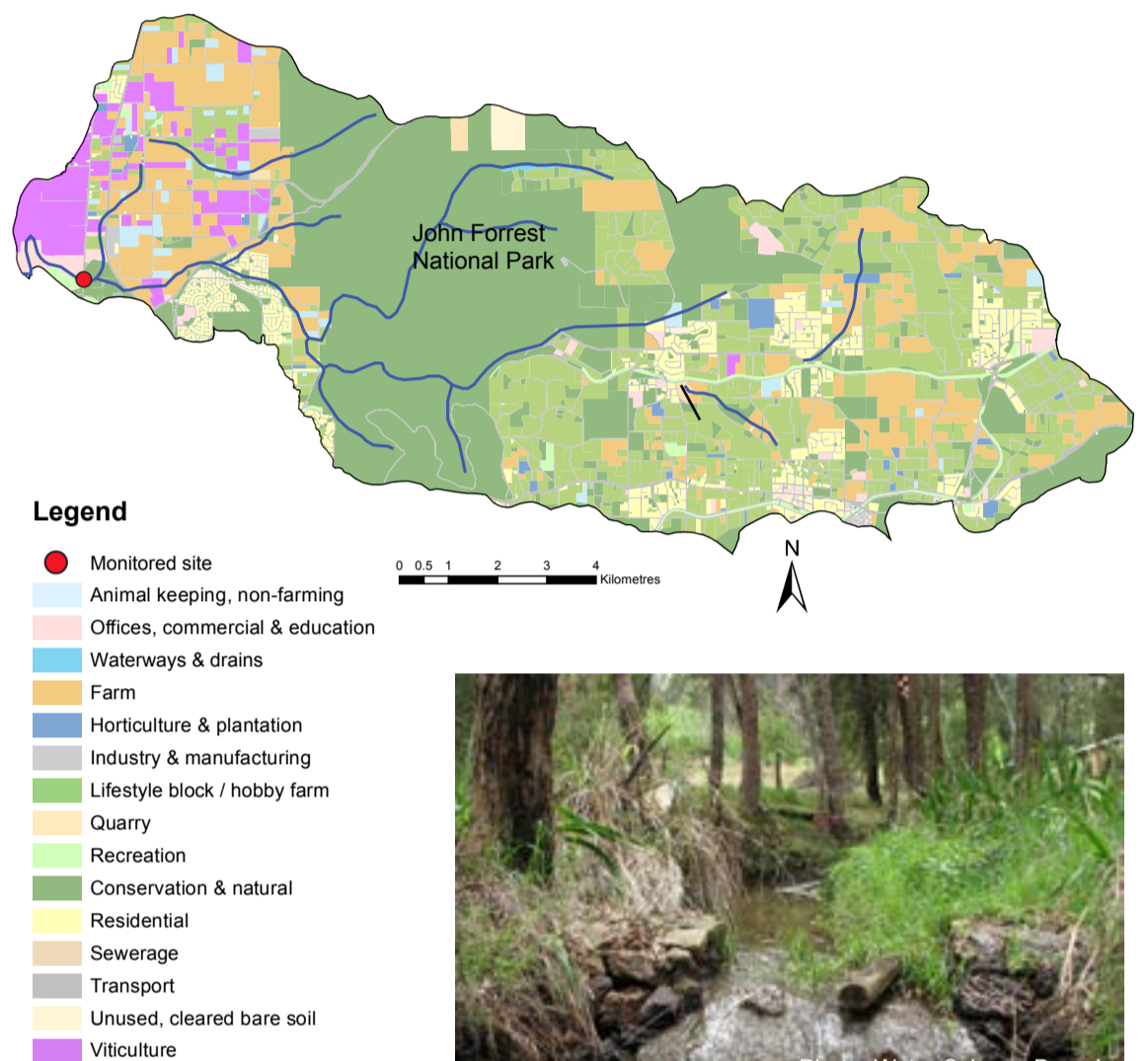
# Jane Brook

Jane Brook is an ephemeral waterway in a largely natural state, with much of its riparian zone in the upper catchment still vegetated. It drains the Darling Scarp before flowing through the coastal plain and into the upper Swan Estuary upstream of Whiteman Bridge. Strelley Brook, a small tributary of Jane Brook, flows through the largely cleared coastal plain portion of the catchment and into Jane Brook just upstream of the confluence with the Swan.

Soils in the catchment range from lateritic and ironstone gravels in the upper reaches to the east, to red and yellow earths on the western plains. Groundwater tends to have a relatively minor contribution to flow in Jane Brook.

Agriculture is the dominant land use in the catchment. Viticulture and poultry farming are the principal land uses in the lower Jane Brook catchment, while the upper catchment supports pasture. Little native vegetation remains in the lower catchment below the Darling Scarp, which includes expanding areas of intensive housing developments. Large tracts of natural bushland remain in the steep middle catchment along the scarp, including a portion of the John Forrest National Park. The upper catchment above the scarp is rural and urban with patchy areas of bushland remaining. Much of the brook's fringing vegetation remains intact.

Water quality is monitored at the Department of Water gauging station near the catchment's lower end, shortly before the brook flows into the upper Swan Estuary. This site is positioned to indicate what nutrients are leaving the catchment and entering the Swan River, so the data may not represent nutrient concentrations in upstream areas.



A small rock weir on Jane Brook

## Jane Brook – facts and figures

Length	~ 17.8 km
Average rainfall	~ 800 mm per year
Gauging station near monitored site	Site number 616088
Catchment area	137 km <sup>2</sup> (total) 135 km <sup>2</sup> (monitored)
River flow	Ephemeral (June to December) No major water supply dams in catchment
Average annual flow	~ 9.1 GL per year (2010–14 average)
Main land uses	Broad acre grazing, viticulture, horticulture, remnant vegetation and expanding urban areas



Photo: Water Science Branch

## Nutrient Summary: concentrations, loads and HRAP targets

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Annual flow (GL)			7.8	14.1	8.1	9.0	10.2		1.1*	17.4	8.0*	13.2	5.9*
TN median (mg/L)	0.53	0.51	0.72	0.66	0.54	0.64	0.56	0.63	0.43	0.86	0.54	0.61	0.56
TP median (mg/L)	0.021	0.025	0.016	0.024	0.009	0.017	0.017	0.021	0.011	0.032	0.019	0.013	0.030
TN load (t/yr)			6.90	12.64	7.06	7.82	9.17		0.72*	16.17	7.48*	13.61	5.08*
TP load (t/yr)			0.11	0.22	0.12	0.12	0.16		0.01*	0.30	0.33*	0.67	0.20*

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).