

Stormwater Drainage Design Guidelines For Residential Developments

Stormwater Management at Residential Properties

Property owners have a statutory obligation under common law and the Local Government Act 1995 to prevent water from dripping or running from a property onto any other land and are not permitted to allow overflow onto neighbouring properties.

The Town of Port Hedland requires that stormwater within lot boundaries is to be retained on site, either through soakwells, drainage retention cells, landscaped gardens or other approved methods.

Retention of stormwater within the lot shall accommodate a minimum of a 1 in 5 year rainfall event (6 minute duration). Overflow storm water shall be directed towards the Town's existing drainage system.

It is recommended that sufficient fall is provided across the site to allow overflow (excess of the 1 in 5 year) towards the Town's drainage system. Stormwater discharge details can be obtained from TOPH Infrastructure Services.

If stormwater is to be discharged to a Town's stormwater manhole, a gross pollutant trap shall be installed. Refer Stormwater Drainage Connection Drawing No TOPH - 1.0 for connection details.

When soakwells or drainage retention basins are being constructed, excavation shall not undermine fencing, retaining walls and adjacent buildings on boundaries or footings to buildings within the property.

Soakwells located under driveways shall have trafficable lids, liners and bases.

Soakwell capacity:

The calculations provided below are a guide only based on rainfall conditions. Excessive storm conditions may cause overflow depending on soil types.

SIZE	CAPACITY	Area in Square Meter per Soakwell For	
		1 in 5 Year Storm Intensity 152 mm/hr	1 in 10 Year Storm Intensity 182 mm/hr
1.2m dia x 0.9m deep	1.00 m ³	Inadequate	Inadequate
1.2m dia x 1.2m deep	1.36 m ³	1 per 100 m ²	Inadequate
1.8m dia x 0.9m deep	2.29 m ³	1 per 175 m ²	1 per 140 m ²
1.8m dia x 1.2m deep	3.05 m ³	1 per 230 m ²	1 per 180 m ²
1.8m dia x 1.8m deep	4.58 m ³	1 per 350 m ²	1 per 290 m ²