

# SC 10 Stormwater management design objectives

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### 10.1 Construction Phase

Table 10.1.1 - Construction Phase

Element	Design objectives
<p><b>Drainage control</b></p> <p>Temporary drainage works</p>	<ul style="list-style-type: none"> <li>a. Design life and design storm for temporary drainage works:               <ul style="list-style-type: none"> <li>i. Disturbed area open for &lt;12 months - 1 in 2 year ARI event.</li> <li>ii. Disturbed area open for 12-24 months - 1 in 5 year ARI event.</li> <li>iii. Disturbed area open for &gt;24 months - 1 in 10 year ARI event.</li> </ul> </li> <li>b. Design capacity excludes minimum 150mm freeboard.</li> <li>c. Temporary culvert crossing - minimum 1 in 1 year ARI hydraulic capacity.</li> </ul>
<p><b>Erosion control</b></p> <p>Erosion control measures</p>	<ul style="list-style-type: none"> <li>a. Minimise exposure to disturbed soils at any time</li> <li>b. Divert water run-off from undisturbed areas around disturbed areas</li> <li>c. Determine the erosion risk rating using local rainfall erosivity, rainfall depth, soil loss rate or other acceptable method.</li> <li>d. Implement erosion control methods corresponding to identified erosion risk rating.</li> </ul>
<p><b>Sediment control</b></p> <p>Sediment control measures</p> <p>Design storm for sediment basins</p> <p>Sediment basing dewatering</p>	<ul style="list-style-type: none"> <li>a. Determine appropriate sediment control measures using:               <ul style="list-style-type: none"> <li>i. Potential soil loss rate; or</li> <li>ii. Monthly erosivity; or</li> <li>iii. Average monthly rainfall.</li> </ul> </li> <li>b. Collect and drain stormwater from disturbed soils to sediment basin for design storm event:               <ul style="list-style-type: none"> <li>i. Design storm for sediment basin sizing is 80th% five day event or similar</li> </ul> </li> <li>c. Site discharge during sediment basin dewatering:               <ul style="list-style-type: none"> <li>i. Total suspended solids: &lt;50 mg/L TSS;</li> <li>ii. Turbidity not &gt;10% receiving waters turbidity;</li> </ul> </li> </ul>

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	iii. pH 6.5-8.5.
<b>Water quality</b> Litter and other waste, hydrocarbons and other contaminants	a. Avoid wind-blow litter; b. Remove gross pollutants; c. Ensure there is no visible oil or grease sheen on released waters; d. Dispose of waste containing contaminants at authorised facilities.
<b>Waterway stability and flood flow management</b> Changes to the natural waterway hydraulics and hydrology	For peak flow for the 1 year and 100 year ARI event, use constructed sediment basins to attenuate the discharge rate of stormwater from the site.

Note - This schedule is in accordance with SPP (July 2017). Where a new SPP has been released, the development will need to adopt the latest SPP in place at the time of the development application.

### 10.2 Post Construction Phase

**Table 10.2.1 Post Construction Phase**

Application	Design objectives				Notes
	Minimum reductions in mean annual load from unmitigated development (%)				
	Total suspended solids (TSS)	Total phosphorus (TP)	Total nitrogen (TN)	Gross pollutants >5mm	
All catchments and zones	80	60	45	90	-
Emerging community zone	In the Emerging community zone, development is to achieve the greater pollutant removal of: <ol style="list-style-type: none"> <li>the above reductions in mean annual load for unmitigated development;</li> <li>or</li> <li>no worsening (no increase in pollutant loads of the existing land uses) of TSS, TP, TN and gross pollutants.</li> </ol>				Achievement of no-worsening may require implementation of a solution across the structure plan area.
All	Waterway stability management  Limit the peak 1 year ARI event discharge within the receiving waterway to the pre-development peak 1 year ARI event discharge.				For peak flow for the 1 year ARI event, use co-located storages to attenuate site discharge rate of stormwater.

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