SC 10 Stormwater management design objectives

10.1 Construction Phase

Table 10.1.1 - Construction Phase

Element	Desi	Design objectives		
Drainage control	a.	Design life and design storm for temporary drainage works:		
Temporary drainage works		 Disturbed area open for <12 months - 1 in 2 year ARI event. 		
		ii. Disturbed area open for 12-24 months - 1 in 5 year ARI event.		
		iii. Disturbed area open for >24 months - 1 in 10 year ARI event.		
	b.	Design capacity excludes minimum 150mm freeboard.		
	C.	Temporary culvert crossing - minimum 1 in 1 year ARI hydraulic capacity.		
Erosion control	a.	Minimise exposure to disturbed soils at any time		
Erosion control measures	b.	Divert water run-off from undisturbed areas around disturbed areas		
	C.	Determine the erosion risk rating using local rainfall erosivity, rainfall depth, soil loss rate or other acceptable method.		
	d.	Implement erosion control methods corresponding to identified erosion risk rating.		
Sediment control	a.	Determine appropriate sediment control measures using:		
Sediment control measures		i. Potential soil loss rate; or		
Design storm for sediment basins		ii. Monthly erosivity; or		
Sediment basing dewatering		iii. Average monthly rainfall.		
	b.	Collect and drain stormwater from disturbed soils to sediment basin for design storm event:		
		i. Design storm for sediment basin sizing is 80th% five day event or similar		
	c.	Site discharge during sediment basin dewatering:		
		i. Total suspended solids: <50 mg/L TSS;		
		ii. Turbidity not >10% receiving waters turbidity;		

	iii. pH 6.5-8.5.	
Water quality	a. Avoid wind-blow litter;	
Litter and other waste, hydrocarbons and other contaminants	b. Remove gross pollutants;	
	c. Ensure there is no visible oil or grease sheen on release waters;	
	d. Dispose of waste containing contaminants at authorised facilities.	
Waterway stability and flood flow management 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 object	ives	Notes		
	Minimum red	uctions in mean develop			
	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 greater pollutar a. the above developm or b. no worser land uses	g community zon nt removal of: e reductions in m lent; ning (no increase) of TSS, TP, TN	Achievement of no-worsening may require implementation of a solution across the structure plan area.		
All	Waterway stab Limit the peak waterway to the discharge.	ility managemen 1 year ARI even e pre-developme	For peak flow for the 1 year ARI event, use co-located storages to attenuate site discharge rate of stormwater.		

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