

Table 7.3 Summary Guidelines for Design of Slow Sand Filters

Description	Recommended Design value	Description	Recommended Design Value
Design	10 years	Depth of Supernatant water	1.0 m
Filtration rate		Free Board	0.2m
Normal Operation	0.1 m / hr	Depth of filter sand Initial	1.0m
Max. overload rate	0.2m / hr		
		Final (Minimum)	0.4m
Number of filter beds minimum	2	Size of sand Effective size	0.2-0.3mm
Area upto 20m ³	2	Uniformity coefficient (U.C)	5
Area upto 20-249 m ²	3	Gravel (3-4 layers) depth	0.3m
Areas upto 250-649 m ²	4	Underdrains (made of bricks or perforated pipes)	0.2m
Areas upto 650-1200 m ²	5	Depth of filter box	2.7m
Areas upto 1201-2000 m ²	6	Effluent weir level above sand bed	20-30mm