

Consultant's Design Certification Checklist Bio-Retention System (BRS) – Raingarden

EXAMPLE FOR CONSULTANT'S OPTIONAL INTERNAL USE NOT REQUIRED TO BE SENT TO MELBOURNE WATER

Project name and EPMS ref:	
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Subdivision:	
Municipality	
Municipality:	
Developer:	
Consultant:	
Consultant rep:	
Melbourne Water assessor:	
Consultant ref:	
Melbourne Water ref:	
Melways ref:	
rieiways fei:	
Date:	

	BRS	Yes	No	N/A	Comments
1	The BRS has been designed following the FAWB guidelines .				
2	Is the decision to have a lined BRS system or an unlined system the correct one? (This will dictate the various filter options and depth).				
3	The BRS has an EDD of 200-500mm (500mm max).				
4	There is a grated overflow pit for flows > the EDD. (A grated riser pipe is another alternative however a grated pit is MW's preference.)				
5	The unsaturated zone is between 300-700mm of filter media.				
6	The transition layer consists of 100mm coarse sand.				
7	There is a submerged zone, 450mm sand carbon or gravel carbon.				
8	There a drainage layer of 150mm gravel.				
9	The collection pipes are slotted 100-150mm dia PVC.				
10	The velocity entering the BRS is acceptable.				
11	There is a sediment pond or GPT prior to flows entering the BRS.				
12	The asset is easily maintainable.				
13	The BRS is appropriately sized for the catchment.				
14	The inlet zone is appropriate.				
15	Rock beaching or dense vegetation has been provided for scour prevention.				
16	Appropriate planting is being proposed for the BRS.				

17	The system is free from mulch (which will clog the BRS with organic material).		
18	The BRS will have a sacrificial layer (geo-fabric material with 100mm topsoil and grass) until the surrounding development is finalised with the sacrificial layer then removed and planting occurring.		
19	Dense vegetation or fencing is being proposed for pedestrian safety (possible falls from height or tripping hazards).		
20	The approach batters to the BRS are appropriate for safety, scouring and velocity of flows entering the BRS.		
21	There is a maintenance track to the BRS.		
22	All services passing under the BRS meet MW's clearance and offset requirements.		
23	A draft maintenance agreement has been created.		
24	The filter media hydraulic properties are stated within the drawings.		
25	The filter media testing requirements are stated on the drawings.		
26	The filter media horticultural properties are stated on the drawings.		
27	The various filter material construction specifications are stated on the drawings.		
28	The construction hold points are stated on the drawings.		
29	Filter media compaction requirements are stated on drawings.		