MAINTENANCE SHEET - Biofilter



Date	 Purp	oose of visit	Raiı	nfall conditions
Location		Maintenance		Rainfall today (mm)
Asset name		Response to complaint		Rainfall in last 3 days (mm)
Asset ID		Other (specify)		No recent rainfall
Maintained by				

Functional component		Maintenance response and information	Maintenance completed Circle Y (yes), N (no) or NA (not applicable) and write what maintenance was done in the 'Notes' section.				
	Surrounds and other infrastructure						
	Damage or removal of structures Response: Rectification works for structural issues to be undertaken immediately. Information: Refer to Works as Executed plans for specifications for		Y N NA Notes:				
		structural repairs.					
1	Inlet						
la	Blockage	Response: Unblock inlet pipes. Remove sediment from inflow areas. Information: Waste must be transported to a waste facility that is appropriately licensed to accept such waste (if there is no opportunity for reuse on-site). A pit is considered a confined space, requiring safety equipment and training. If the inlet is cleaned regularly, it can reduce the amount of litter, debris and sediment accumulating on the filter surface.	Y N NA Notes:				
1b	Erosion Response: Re-profiling using hand tools or light machinery. Replant if required.		Y N NA Notes:				
		Information: Typically required after heavy rainfall.					
2	Inlet sediment pits and forebays						
2a	Blockage	Response: Unblock inlet sediment pits. Remove sediment from inflow areas.	Y N NA Notes:				
		Information: Waste must be transported to a waste facility that is appropriately licensed to accept such waste (if there is no opportunity for reuse on-site). A pit is considered a confined space, requiring safety equipment and training.					
2b	Permeability and clogging	Response: Remove sediment and debris from drainage holes and ensure permeability. Information: Waste must be transported to a waste facility that is appropriately licensed to accept such waste (if there is no opportunity for reuse on-site). A pit is considered a confined space, requiring safety equipment and training.	Y N NA Notes:				
3	Batters						
3а	Erosion	Response: Re-profiling using hand tools or light machinery. Replant if required. Information: Typically required after heavy rainfall.	Y N NA Notes:				
3b	Plant health	Response: Variable weekly watering for the first 6-8 weeks (until plants are established and actively growing) especially in dry weather. Information: Watering during the plant establishment phase is important to enable quick plant establishment. Watering during dry periods after establishment may be required to prevent plant death.	Y N NA Notes:				
3c	Plant cover	Response: Replant vegetation to achieve desired plant coverage. Information: Only use approved species for planting.	Y N NA Notes:				

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MAINTENANCE SHEET - Biofilter



Functi comp		Maintenance response and information	Maintenance completed Circle Y (yes), N (no) or NA (not applicable) and write what maintenance was done in the Notes' section.		
3d	Litter and debris	Response: Manually remove litter. Information: Contact with sharp objects is a risk when removing litter. All workers must follow WHS practices to reduce risk, including wearing personal protective equipment. Forks and tongs may be used for litter pick ups. Note: all disposal procedures are to adhere with NSW EPA and local authorities' requirements.	Y N NA Notes:		
3e	Vehicle or pedestrian damage	Response: Rectification works for structural issues to be undertaken immediately. Replace lost plants and reprofile filter surface if affected. Information: Refer to Works as Executed plans for specifications for structural repairs.	Y N NA Notes:		
3f	Weeds	Response: Remove weeds by using small shovels, mattocks or similar. Any trimmed or removed plant material must be taken off-site and disposed of appropriately. Information: The composition of plant species in the biofilter may change over time and vary from the original planting schedule. The system should be left to reach its own balance of plant composition (excluding weeds) provided the system is functioning as intended. If replanting is required, look at what species are performing well. Remove weeds before they flower and seed. Note: use of herbicides may compromise the integrity and performance of filter medium. Categories of weeds can be found on the NSW WeedWise website at: weeds.dpi.nsw.gov.au/Weeds/Categories	Y N NA Notes:		
4	Biofilter su				
4a	Erosion	Response: Re-profiling using hand tools or light machinery. Replant if required. Filter surface should be flat and even. Information: Typically required after heavy rainfall. For smaller incidents of scour and erosion, try transplanting some plants from a denser vegetated part of the biofilter. If you require further investigation into a current issue, refer to Water by Design (2012) Rectifying Vegetated Stormwater Assets.	Y N NA Notes:		
4b	Extended detention depth	Response: Remove overfilled material and re-level filter surface to include the extended detention depth as specified on the Works as Executed plans. Information: The depths of the material should meet those specified in the Works as Executed plans.	Y N NA Notes:		
4c	Leaf litter	Response: Manually remove litter. Information: The filter media should not be compressed during maintenance and monitoring activities as this can damage the underdrainage and reduce infiltration capacity. Forks and tongs may be used for litter pick ups.	Y N NA Notes:		
4d	Permeability and clogging	Response: If filter media is clogged, remove and replace media. Reprofile area and replant as required. Remove any algal presence by removing the top layer of filter media using a shovel and replace top layer of filter media and plants. Reprofile if required. Information: Conduct the hydraulic conductivity test in line with Adoption Guidelines for Stormwater Biofiltration Systems (2015) measurement of hydraulic conductivity. If the cover of moss or algal growth is >10%, refer to Water by Design (2012) Rectifying Vegetated Stormwater Assets. Note: the minimum hydraulic conductivity as defined by ASTM F1815-06 is to be a minimum of 100 mm/hr.	Y N NA Notes:		
4e	Plant health	Response: Variable weekly watering for the first 6-8 weeks (until plants are established and actively growing) especially in dry weather. Information: Watering during the plant establishment phase is important to enable quick plant establishment. Watering during dry periods after establishment may be required to prevent plant death.	Y N NA Notes:		

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MAINTENANCE SHEET - Biofilter



Functi comp	onal onent	Maintenance response and information	Maintenance completed Circle Y (yes), N (no) or NA (not applicable) and write what maintenance was done in the 'Notes' section.
4f	Plant cover	Response: Replant vegetation to achieve desired plant coverage. Information: Only use approved species for planting.	Y N NA Notes:
4g	Litter and debris	Response: Manually remove litter. Information: Contact with sharp objects is a risk when removing litter. All workers must follow WHS practices to reduce risk, including wearing personal protective equipment. Forks and tongs may be used for litter pick ups. Note: all disposal procedures are to adhere with NSW EPA and local authorities' requirements.	Y N NA Notes:
4h	Sediment accumulation	Response: If accumulated sediment is present on the surface, remove by flat shovel, rake filter media and restore to design levels if required. Replacement of vegetation may be required. Information: Waste must be transported to a waste facility that is appropriately licensed to accept such waste (if there is no opportunity for reuse on-site).	Y N NA Notes:
4i	Surface levels	Response: Reprofile the filter surface to ensure a flat and even surface. The filter media should be low enough to allow for adequate extended detention depth. Information: Ensure the filter media is NOT filled up to the invert level of the inlet.	Y N NA Notes:
4j	Weeds	Response: Remove weeds by using small shovels, mattocks or similar. Any trimmed or removed plant material must be taken off-site and disposed of appropriately. Information: The composition of plant species in the biofilter may change over time and vary from the original planting schedule. The system should be left to reach its own balance of plant composition (excluding weeds) provided the system is functioning as intended. If replanting is required, look at what species are performing well. Remove weeds before they flower and seed. Note: use of herbicides may compromise the integrity and performance of filter medium. Categories of weeds can be found on the NSW WeedWise website at: weeds.dpi.nsw.gov.au/Weeds/Categories	Y N NA Notes:
5	Outlet, ove	rflow pit and inspection pipes	
5a	Blockage	Response: Unblock outlet pipes. Remove sediment from outflow areas. Information: Waste must be transported to a waste facility that is appropriately licensed to accept such waste (if there is no opportunity for reuse on-site). A pit is considered a confined space, requiring safety equipment and training.	Y N NA Notes:
5b	Inspection pipes	Response: Flush underdrain pipes using a water jet or pipe snake until a clear stream of water is present at the base of the outlet pit. If a saturated zone is present, the saturated zone should be drained before flushing out underdrain pipes. Information: Most underdrain pipes rarely need flushing and some underdrain systems are not connected to an outlet pit which makes inspection and flushing impossible. The inspection openings are often covered by vegetation and you may need to refer to the Works as Executed plans to find their location. Underdrainage pipes can be damaged if the water jet is too strong.	Y N NA Notes:
5с	Erosion	Response: Re-profiling using hand tools or light machinery. Replant if required. Information: Typically required after heavy rainfall.	Y N NA Notes:
Other:	l		<u> </u>

Other:

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