MIDCOAST council

Fact sheet

Maintaining your raingarden

This information applies to raingardens built on single dwellings/dual occupancies and small scale industrial/commercial development. Larger developments are required to develop an operations and maintenance plan as part of their development consent.

How do I know if I have a raingarden on my property?
A raingarden will be a designated part of your landscaping that contains native plants and an inlet pipe from your rain tank. Typically there will be a notice in your electricity box showing the location of the raingarden. In some cases, the raingarden will be included on your title plan (e.g. Section 88B). If you have purchased a property with a raingarden you are required to maintain it. If you notice a garden area that has plumbing including inlet and outlet pipes/pits it is likely that it is a raingarden.

How to look after your raingarden
Once established, raingardens are low maintenance. There are a number of things you should check to ensure effective long-term function of your biofiltration system. These include:

- Plant growth
- Erosion and litter build up
- Drainage

Table 1 outlines the maintenance activities that need to be carried out to ensure effective long-term function of your raingarden.

Table 1 Maintenance matters

Inspection Task	Frequency	Maintenance Action	Comment
Erosion & Litter Build-up			
Check for sediment deposition	3 monthly, after rain	Remove excess sediment from around the inlet.	Blocking of inlets and filter media reduces treatment.
Check for holes, erosion or scour	3 monthly, after rain	Infill any holes, repair erosion and scour. Provide/augment energy dissipation (e.g. rocks and pebbles at inlet).	Holes, erosion and scour can be a sign of excessive inflow velocities and inadequate energy dissipation.
Inspect for the build-up of fine sediment on the surface of the filter media, excessive moss growth, vegetation or evidence of prolonged ponding (i.e. clogging)	3 monthly, after rain or if infiltration through the filter media is reduced.	Clear away any fine sediment on the surface and lightly rake over the surface of the filter media between plants to loosen filter media. Remove leaves and vegetation from the surfaces.	Reduced surface porosity reduces treatment capacity.

Inspection Task	Frequency	Maintenance Action	Comment
Plant Growth			
Check plants for signs of stunted growth or die back	Daily during the first month of planting 3 monthly after established. Weekly during long dry spells	Water raingarden daily during weeks 1-3 Water raingarden weekly during long dry spells.	Poor plant health can be a sign of too much or too little water. Plants are critical for the removal of nutrients and should remain healthy, their roots support biofilms that remove excess nutrients.
Check that original plant densities are maintained.	2 monthly, or as desired for aesthetics	Carry out infill planting to maintain approved plant densities. Plants should be evenly spaced. If stunted growth / dieback is observed determine the cause (e.g. too much or too little water) and select replacement species more suited to the conditions.	Plants are essential for pollutant removal and maintaining drainage. Plants should be close enough that their roots touch each other; 6 – 10 plants/m2 is generally adequate. High plant density helps prevent weeds.
Check for presence of weeds	3 monthly, or as desired for aesthetics	Remove weeds by hand	Weeds can reduce aesthetics and treatment capacity because native plants are more effective at pollutant removal than weeds.

Inspection Task	Frequency	Maintenance Action	Comment
Drainage			
Check that inflow areas, weirs and grates over pits are clear of litter and debris	Monthly, and after rain.	Remove litter and debris Replace dislodged or damaged pit/pipe covers as required	A blocked grate or inlet would cause nuisance flooding and may lead to plant death within the raingarden.
Check that the underdrain is not blocked with sediment or roots.	Annually unless infiltration rates are reduced.*	Clear underdrain as required using a garden hose through the cleanout pipe. Seek professional assistance to remove roots if this is an issue.	Filter media and plants can become waterlogged if the underdrain is choked or blocked. If the raingarden doesn't drain effectively there is the potential for waterlogging to impact on the structural integrity of adjacent infrastructure

*Note: ponding on the surface for more than six hours following the end of the rainfall event is a sign of reduced infiltration and drainage.

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Fact sheet

The following checklist is provided to assist residents to undertake inspections of raingardens on their property.

Residential raingarden maintenance inspection checklist				
Inspection items	**Y**	**N**	**Defect - action required**	**Action completed (date & initial)**
Vegetation condition satisfactory?				
Watering of vegetation required?				
Removal of dead vegetation/dieback required?				
Weed removal required?				
Litter/debris accumulation within raingarden?				
Surface sediment accumulation visible?				
Evidence of prolonged ponding (>6 hours)?				
Clogging of drainage points (sediment/debris)?				
Erosion at inlet points?				
Damage/blockage/vandalism to structures?				

Acknowledgement
This fact sheet has been prepared to suit small household raingardens by adapting the *Guidelines for Filter Media in Stormwater Biofiltration Systems*, Version 4.01 July 2015. Cities as Water supply Catchments – Sustainable Technologies, Australian Government Department of Industry and Science, and Business Co-operative Research Centres Programme; at www.watersensitivecities.org.au/ (last accessed 1/5/2018).

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Disclaimer

The material contained in this fact sheet is general information only. It should not be relied upon without discussing the specifics of your particular circumstance with an appropriate Council officer. This document is subject to change without notice.

The information in this fact sheet is given as guidance only and for more detailed information, please download the:

- *Adoption Guidelines for Stormwater Biofiltration Systems - Summary Report*, Cities as Water supply Catchments – Sustainable Technologies, Australian Government Department of Industry and Science, and Business Cooperative Research Centres Programme; CRC for Water Sensitive Cities (www.watersensitivecities.org.au/) https://watersensitivecities.org.au/wp-content/uploads/2016/09/Adoption_Guidelines_for_Stormwater_Biofiltration_Systems.pdf
- *Maintenance: field sheet,* CRV for Water Sensitive Cities https://watersensitivecities.org.au/wp-content/uploads/2016/10/AGSBS-J1-Appensix.pdf