



Rootlok Maintenance Guide

Maintenance

Periodic and routine

The Rootlok system is low maintenance and requires very little intervention once it is installed and less when it becomes fully established.

Watering the Rootlok wall is of key importance to establish vegetation during the first 2-3 years until vegetation has taken, the wall must be inspected and watered following periods of drought/ hot weather.

Maintenance schedule

Year 1

- Seed germination in July and August, fast emerging grasses will establish during Summer and autumn, other grasses should be allowed to continue to grow and establish without cutting during Year 1.
- Perform a visual inspection to identify and remove any injurious weeds and large self-sets. Burrowing animals such as rabbits, badgers or fox are to be clearly identified, marked and the locations shall be reported and dealt with under controlled operations. Contact GeoGrow for guidance.
- Watering is required in prolonged periods of drought.
- Natural die-back will occur during the winter period.
- No major maintenance or cutting will be required.

Year 2

- Grasses will continue to grow from spring onwards with other species starting to populate the system. Wildflowers will start to establish from summer onwards. Small self-set plants, shrubs should be allowed to establish.
- Vegetation coverage should reach 70-80%.
- Perform a visual inspection to identify and remove any injurious weeds, large self-sets and burrowing animals. Contact GeoGrow for guidance.
- Watering is only required in prolonged periods of drought.
- Natural die-back will occur during the winter period.
- No major maintenance or cutting will be required.

Year 3

- Vegetation coverage will continue to get stronger with wildflowers increasing in population.
- Perform a visual inspection to identify and remove any injurious weeds, large self-sets and burrowing animals. Contact GeoGrow for guidance.
- Watering is only required in prolonged periods of drought.
- Natural die-back will occur during the winter period.
- No major maintenance or cutting will be required.

Structural inspection

- 🌿 Recommended once every 1 year OR as per the guidance of the Local Authority's policy for retaining Slope structures.
- 🌿 Should a visual inspection highlight any structural defects, subsidence or vegetation matters - report the location immediately to the maintenance team and inform the manufacturer GeoGrow Ltd for advice.

Inspections should be completed follow any severe flooding / weather event

Ongoing general maintenance

- 🌿 General inspection once a year.
- 🌿 Grass cutting: minimal frequency – once a year, if required.
- 🌿 Injurious weeds and large self-sets need to be removed.
- 🌿 Watering – required in prolonged periods of drought.
- 🌿 Wildlife inspection for burrowing animals - rabbits, badgers, fox and other burrowing mammals are to be clearly identified, marked and the locations shall be reported and dealt with under controlled operations.

General maintenance of surrounding or attached landscaping assets.

General maintenance for the surrounding or attached landscaping assets of a vegetated Rootlok wall or gabion basket, such as swales and ditches, should be performed carefully to avoid damaging the system. All maintenance activities, including the removal of debris or sediment and the management of vegetation, should be carried out by hand. The use of mechanical plant or heavy machinery is not recommended, as it can compact the soil, disrupt the root systems of the vegetation, and compromise the structural integrity of the system itself.

General maintenance guidelines

Cutting

Grass cutting is to be done in such a way so that no damage is caused to the bag system. Strimmer's may be used at low level to cut the grass 125mm-150mm away from the face of the Rootlok wall. Aboom attachments using rotary cutting heads can be used on mid-high slopes, cutting 125mm150mm away from the wall face to avoid damage to the bag system.

Self-set trees, injurious weeds, larger shrubs and plants are to be detected at an early growth stage

Watering

Under general UK weather conditions with regular rain patterns. Watering will be required during prolonged periods of drought and during the initial germination and establishment phase. Small mobile equipment and/or a spraying truck can be used to water all areas of the wall/vegetation at a medium sprayed pressure. Water at regular intervals during drought conditions.

Drainage

In areas with high material flow, such as outlets near ditches and watercourses, drainage outlets from the retaining structure must be kept clear of obstructions. This prevents blockages and the accumulation of water, which can compromise structural integrity.

Periodically inspect and clean land drains and discharge points within the retaining structure. If necessary, clear obstructions from land drains using a drain rod and a water flush.

Adjacent watercourses must also be maintained to ensure that during general use or high water flow events that the course does not change towards the retaining structure and result in the foundations or front face of the structure being damaged or undermined.

For all other major maintenance matters refer to the: MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS - VOLUME 1 SPECIFICATION FOR HIGHWAY WORKS. SERIES 3000 (05/01) LANDSCAPE AND ECOLOGY.

Damaged elements

The most common types of issue that may warrant inspection and action are listed below. Vegetated walls are natural and flexible structures and subject to some movement, changes and settlement over time. This may lead to minor cracking or movement. Any physical damage to the structure from vehicles or other parties not listed below and picked up in inspections should be assessed and reported to GeoGrow Ltd if remedials are required.

Vandalism

Due to the often public facing or unsecured nature of retaining structures, they can occasionally be susceptible to vandalism. Damage to the vegetation or painting of the structure face will self repair with new growth. Other damage to the structure or bags may require repairs. It is recommend that GeoGrow Ltd are contacted following any substantial damage for advice on possible solutions.

Individual bag damage

If through natural means or isolated vandalism, localised damage is caused to the Rootlok bags that extends to a solitary bag, it is unlikely to require remedial action, please contact GeoGrow to verify. Damage to capping bags at the top of the structure can be replaced by requesting individual replacement bags. Please get in contact with GeoGrow Ltd if this is required.

Loss of engineered backfill

Small areas of spawling or localised loss of backfill is unlikely to be detrimental to the operation of the Rootlok wall and can result during the initial settlement stage. Continued or larger areas of backfill is not typical of the standard operation of the structure and should be monitored and reported if required.

Differential settlement

Rootlok vegetated structures are flexible and can tolerate moderate levels of differential settlement without any significant structural effects. If the structure has been constructed in keeping with the design, settlement should be minor. Significant settlement differences across the structure suggests compaction of the backfill different to what has been specified, or more likely to be a founding material that is inconsistent with what was expected. If the differential settlement continues, it will need to be investigated by an engineer, or reported to GeoGrow Ltd who can advise.

Bulging of front face / negative batter

Retaining structures will be built with a batter that is consistent with that specified in the design. Subsequent bulging and the appearance of steepened or even negative batter is not typical and will need further investigation by a qualified engineer and reported to GeoGrow Ltd to establish the potential cause.

Inspection schedule

To ensure optimal results, it is important that you take extra care of your newly hydroseeded/preseeded Rootlok wall. Our easy to follow aftercare regime provides you with a year by year guide for successful and sustained vegetation:

Inspection Type	Frequency	Process
Structural	Yearly After significant weather events	Visual inspection to Highlight areas of damage /bulging/ vandalism/ settlement / burrowing animals
Drainage	Yearly After significant weather events	Rodding/ jetting and Check for blockages within any installed drainage
Vegetation De-weeding	Yearly In winter season	Removal of any weeds and woody vegetation that has self-seeded in the wall
Vegetation Cutting	Year 1-3 No cutting Year 3 onwards Yearly - Ideally in summer	Cutting should be completed with a strimmer with a guard set to cut no closer than 100mm to the bag face
Vegetation Watering	Year 1-3 Spring - *Once weekly Summer - Twice weekly Autumn - *Once weekly Winter - None required Year 3 onwards As required after periods of drought	Watering should be completed either with a watering system installed on the wall face. Manual watering is also possible but care should be taken with the pressure of any hose, water application should be via misting not jetting to ensure hydroseed does not wash off. If using a water system, system should be run for 6 hours at a time or until bags are saturated ensuring that the pipework is seeping not spraying. If manual watering is undertaken water until bags are saturated.

()Frequency of watering may need to be increased or decreased dependant on weather conditions, frequencies provided are a guideline and should be assessed on site*



Spares: Lists of recommended spares or spare components provided

No spares are required for the general establishment and growth of the wall. Any damage to the top or surface bags from third parties or non-GeoGrow construction activity can be resolved by requesting replacement bags from GeoGrow. More significant damage will need to be assessed by a GeoGrow engineer who should be able to propose a remedy. Please contact GeoGrow for advice and costing in the above situations.

Cleaning schedule

No significant cleaning is required during the establishment and growth stages of the wall. Once hydroseeded, the wall will need to be kept clear of obstructions or any debris that will block or harm the germination and growth of the hydroseeded vegetation.



DESIGN  MANUFACTURE  INSTALL

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