

Guidance on the Maintenance Plan

1. Why is a Maintenance Plan such an important part of a drainage submission?

The purpose of a Maintenance Plan is to ensure all those involved in the maintenance and ongoing operation of the SuDS system understand its functionality and maintenance requirements in terms of supporting long-term performance to the design criteria to which it was designed.

A Maintenance Plan delivered as part of a drainage submission:

- Confirms that the designer has taken maintenance into account within the design
- Demonstrates the competence of the designer
- Provides a guide to the adoption team as to what the maintenance requirements of the system are and how they can be met most efficiently
- Provides a basis for costing long term maintenance budgets (and commuted sums, if required)
- Provides a working document for use on site
- Details procedures for dealing with emergency spillages, vandalism, etc. It should include the local Environment Agency or SEPA Emergency Hotline telephone number which should be called in case of spillages or other pollution incidents.

The Maintenance Plan for the drainage system should be designed in cooperation with the adopting authority and the information therein should be presented and discussed verbally with all those involved in inspecting and maintaining the drainage systems.

2. What should a Maintenance Plan include?

The SuDS Maintenance Plan should cover and clarify the following issues:

- A description of the site - concentrating on describing how the drainage system works in practice and what it is trying to achieve. This is likely to include flow routes, sub-catchments, SuDS components, flow control features and outfall arrangements. It should also explain the visual and biodiversity aspects of a scheme as these can easily be compromised by inappropriate maintenance.
- A plan of the site that identifies runoff sub-catchments, SuDS components, critical water levels, control structures, flow routes (including exceedance routing) and outfalls.
- A plan clearly showing the extent of the adopted area along with easements and rights of way for access to carry out maintenance. If other parties are responsible for different parts of a scheme, this should be clearly shown on the plan.
- The access that is required to each surface water management component for maintenance purposes and a plan for the safe and sustainable removal and disposal of waste periodically arising from the drainage system.
- A review of the work to be undertaken based on regular day to day maintenance, occasional tasks and remedial work. Details of the likely maintenance requirements for each SuDS element are provided in the SuDS Manual. Maintenance requirements for proprietary systems should be provided by the manufacturer or supplier.
- The maintenance specification - detailing the materials to be used and the standard of work required. A specification should describe how the work should be carried out and should contain clauses giving general instructions to the maintenance contractor.



- The maintenance schedule of work - itemizing the tasks to be undertaken and the frequency at which they should be performed so that an acceptable long-term performance standard is secured. This schedule can then be priced, checked on site and form the basis of an inspection log where appropriate. The schedule should be a living document as it may change, where inspections advise changes to the scheme maintenance requirements.
- Contact sheet and any additional guidance notes – e.g. action plan for dealing with accidental spillages.
- Photographic records of the inspections. This can pick up long-term changes that might not be apparent on a single visit, especially where inspections are carried out by different members of staff.

Note: An example of a Maintenance Plan is available as a separate document.

Maintenance Inspection Checklists

3. Objectives

This checklist is a generic list that can be added to, or have items removed from, to suit a particular site. The exact content of the checklist will depend on the combination of different SuDS components used in a scheme. Checklists should be selected based on the combination of elements in the drainage system to provide a bespoke inspection report.

The objective of this checklist is to:

- Confirm that appropriate routine maintenance of the system is being undertaken
- Confirm that the system is continuing to operate effectively
- Identify any remedial works required
- Provide a consistent record of the condition and performance of the system.

It is not a checklist of maintenance items (see CIRIA C697 for maintenance schedules – [page references are provided below](#)). It is a checklist to facilitate consistent inspection of the condition of the system. It can be used by any organisation responsible for the long-term maintenance of the SuDS system as a recording process, or by a sub-contracted organisation as part of their client reporting procedures.

The SuDS Manual – Page references for appropriate maintenance activities and frequencies

Component	SuDS Manual Page Ref *
Filter strip	
Swale	
Infiltration basin	
Soakaway	
Detention basin	
Pond	
Wetland	
Bioretention	
Permeable/porous pavement	
Filter drain	
Proprietary systems	Maintenance and inspection activities and frequency of proprietary systems should follow the advice provided by the manufacturer or supplier and should be included on the checklist for a site. These should be checked during the first year of operation to make sure they are appropriate for the site.
Attenuation tanks	
Green roofs	

(*) SuDS Manual Page References will be included once the SuDS Manual update has been completed.



Inspections should comply with all relevant Health and Safety legislation (Health and Safety at Work Regulations, 1999) including the development of risk assessments for working close to or in water.

Inspections should ideally be carried out monthly (and no less than 3 monthly), at the same time as other routine maintenance activities.



Table 1: SuDS Maintenance Inspection Checklist

GENERAL INFORMATION			
Site ID			
Site Location and co-ordinates (GIS if appropriate)			
Elements forming the SuDS scheme		Approved Drawing Reference(s)	
Inspection frequency		Approved Specification Reference	
Type of development		Specific purpose of any parts of the scheme (e.g. biodiversity, wildlife and visual aspects)	

	Inspection date				Inspection date			
	Details	Y/N	Action required	Date Completed	Details	Y/N	Action required	Date Completed
GENERAL INSPECTION ITEMS								
Is there any evidence of erosion, channelling, ponding (where not desirable) or other poor hydraulic performance?								
Is there any evidence of accidental spillages, oils, poor water quality, odours, nuisance insects?								
Have any health and safety risks been identified to either the public or maintenance operatives?								
Is there any deterioration in the surface of permeable or porous surfaces (e.g. rutting, spreading of blocks or signs of ponding water)?								



	Inspection date			Inspection date				
	Details	Y/N	Action required	Date Completed	Details	Y/N	Action required	Date Completed
SILT/SEDIMENT ACCUMULATION								
<p>Is there any sediment accumulation at inlets (or other defined accumulation zones such as the surface of filter drains or infiltration basins and within proprietary devices)?</p> <p>If yes, state depth (mm) and extent</p> <p>Is removal required?</p> <p>If yes, state waste disposal requirements and confirm all waste management requirements have been complied with (consult Environment Agency or SEPA).</p>								
Is surface clogging visible (potentially problematic where water has to soak into the underlying construction or ground (e.g. under-drained swale or infiltration basin)?								
Does permeable or porous surfacing require sweeping to remove silt?								
SYSTEM BLOCKAGES / LITTER BUILD UP								
<p>Is there evidence of litter accumulation in the system?</p> <p>If yes, is this a blockage risk?</p>								
Is there any evidence of any other clogging/blockage of outlets or drainage paths?								
VEGETATION								



	Inspection date				Inspection date			
	Details	Y/N	Action required	Date Completed	Details	Y/N	Action required	Date Completed
Is the vegetation condition satisfactory (density, weed growth, coverage etc.)? (Check against approved planting regime.)								
Does any part of the system require weeding / pruning / mowing? (Check against maintenance frequency stated in approved design.)								
Is there any evidence of invasive species becoming established? If yes, state action required.								
INFRASTRUCTURE								
Are any check dams or weirs in good condition?								
Is there evidence of any accidental damage to the system (e.g. wheel ruts?)								
Is there any evidence of cross connections or other unauthorised inflows?								
Is there any evidence of tampering with the flow controls?								
Are there any other matters that could affect the performance of the system in relation to the design objectives for hydraulic, water quality, biodiversity and visual aspects? (Specify.)								
OTHER OBSERVATIONS								
Information appended (e.g. photos)								



	Inspection date				Inspection date			
	Details	Y/N	Action required	Date Completed	Details	Y/N	Action required	Date Completed
SUITABILITY OF CURRENT MAINTENANCE REGIME								
Continue as current Increase maintenance Decrease maintenance								
NEXT INSPECTION								
Proposed date for next inspection								

