



Our Ref; TN/1-046/001  
15 January 2020

## **NORTHAW HOUSE, HATFIELD SUDS DRAINAGE SYSTEM MAINTENANCE PLAN**

### **Introduction**

For any surface water drainage system to operate as originally designed, it is necessary to ensure that it is adequately maintained to ensure its continued performance throughout its design life.

It is proposed the SuDS drainage system at Northaw House, Hatfield will be maintained and managed fully by a private management company.

Tables 1 - 3 below, identify the proposed operation and maintenance requirements and frequencies of each of the SuDS features used within the development based on recommendations within The SuDS Manual (CIRIA 753).

It is proposed the private management company appointed would be legally bound by sufficient maintenance contract to carry out maintenance operation and frequencies fully in line with Tables 1 – 3 over the full design life of the development

The chosen maintenance contractor would also have an emergency response time of 24 hours or less in cases of reported full system blockages.

**Table 1: Operation and Maintenance Requirements for Ponds and Wetlands**

<b>Maintenance Schedule</b>	<b>Required Action</b>	<b>Typical Frequency</b>
Regular Maintenance	Remove litter and debris	Monthly
	Cut the grass	Monthly (during growing season)
	Inspect marginal and bankside vegetation and remove nuisance plants (for first 3 years)	Monthly (at start then as required)
	Inspect inlets, outlets, bankside, structures pipework etc for evidence of blockage and damage	Monthly
	Inspect water body for signs of poor water quality	Monthly
	Inspect silt accumulation rates in main body of pond. Undertake contamination testing once some build up has occurred to inform disposal options	Half yearly
	Hand cut submerged and emergent aquatic plants (at minimum of 0.1m above pond base, include max 25% of pond surface)	Annually
	Remove 25% of bank vegetation from water edge to min of 1m above water level	Annually
	Tidy all dead growth before start of growing season	Annually
Occasional Maintenance	Remove sediment from the main body when pool volume is reduced by 20%	Typically required every 20 -50 years
Remedial Actions	Repair erosion or other damage	As required
	Replant where necessary	As required
	Aerate pond when signs of eutrophication are detected	As required
	Realign rip-rap or repair other damage	As required
	Repair / rehabilitate inlets, outlets and overflows	As required

**Table 2: Operation and Maintenance requirement for Swales**

<b>Maintenance Schedule</b>	<b>Required Action</b>	<b>Typical Frequency</b>
Regular Maintenance	Remove litter and debris	Monthly
	Cut the grass to retain grass height to 0.1m	Monthly (during growing season)
	Manage other vegetation and remove nuisance planting	Monthly at start, then as required
	Inspect inlets, outlets and overflows for blockages and clear if required	Monthly
	Inspect infiltration surface for ponding, compaction, silt accumulation, record areas where water is ponding for more than 48 hours	Monthly or when required
	Inspect vegetation cover	Monthly for 6 months, quarterly for 2 years, then half yearly
	Inspect inlets and facility surface for silt accumulation, establish appropriate silt removal frequencies	Half yearly
Occasional Maintenance	Reseed areas of poor vegetation growth, alter plant types to better suit conditions if required	As required or if bare soil is exposed over 10% or more of the swale treatment area
Remedial Actions	Repair erosion or other damage by re-turfing or reseedling	As required
	Re-level uneven surfaces and reinstate design levels	As required
	Scarify and spike topsoil later to improve infiltration performance, break up silt deposits and prevent compactions of the soil surface	As required
	Remove build up of sediment on upstream gravel trench, flow spreader or at top of filter strip	As required
	Remove and dispose of oils or petrols residues using safe standard practices	As required

**Table 3: Operation and Maintenance requirement for Vortex Flow Control Device**

<b>Maintenance Schedule</b>	<b>Required Action</b>	<b>Typical Frequency</b>
Regular Maintenance	Visual inspection and removal of debris / silt. If any siltation or debris is observed, it will be removed by hosing down, manual cleaning (subject to sufficient risk assessment taking place)	Visual inspection to be carried out once every month or after a substantial storm event.
Occasional Maintenance	Remove debris and hose down as a matter of course including clearing of sump chamber	Every 6 months
Remedial Work	Operation of flow control including testing as required. If operation is compromised in any way, flow control to be replaced.	As required