

SUDS MAINTENANCE PLAN

18165 RUSH LANE, ELSENHAM

The purpose of this document is to provide concise and easy to follow guidance for the management of the site-specific SuDS features. It is the responsibility of the managing authority to ensure that these features are adequately maintained and that the drainage system upon which it relies are not unduly compromised by a failure to do so.

1.0 An introduction to sustainable drainage systems or SuDS

SuDS are an environmentally friendly approach to managing rainfall that uses landscape features to deal with surface water. SuDS aim to:

- Control the flow, volume and frequency of water leaving a development area
- Prevent pollution by intercepting silt and cleaning runoff from hard surfaces
- Provide attractive surroundings for the community
- Create opportunities for wildlife

2.0 SuDS at Rush Lane, Elsenham

The SuDS are designed to prevent flooding of the development and control the flow of water from the site drainage system.

- The basins and swales are largely designed to be dry in normal conditions
- Low flows are directed into the permanent pond areas before being discharged, at a restricted rate, through the gravity outfall into the existing sewer.
- In the event of extreme storm events the basin area will flood in a controlled manner. The basin has been designed to cater for all critical storm events up to the 100-year return period plus a 40% allowance for climate change.

3.0 Managing the SuDS

The SuDS at Rush Lane, Elsenham have been designed for easy maintenance to comprise:

- **Regular day to day care** - litter collection, grass cutting and checking the inlets and outlets where water enters or leaves the SuDS feature
- **Occasional tasks** - managing pond vegetation and removing any silt that builds up in the SuDS features
- **Remedial work** - repairing damage where necessary.

4.0 Maintenance Regime Summary

	Drainage Mechanism	Minimum Frequency of Maintenance
REGULAR MAINTENANCE	Litter Management	Monthly visits to collect all litter or other debris and remove from site at each site visit.
	Grass Maintenance	<p>Monthly visits to mow grass access paths and verges surrounding basins, ponds and wetlands areas at 35mm-50mm min. and 75mm max. or as specified to provide a cared for appearance and allow pedestrian access.</p> <p>Mow rough grass areas for occasional access or habitat reasons at 100mm and maximum 150mm with cuttings removed to wildlife piles, as required 4-6 times annually</p> <p>Grass areas not required for access may be managed for wildlife interest and to reduce costs. Annually or as required.</p> <p>2 cuts in July and September or 1 cut annually in September or October as specified and cuttings removed to wildlife piles.</p>
	Inlet and Outlet Headwalls	Inspected monthly or after intense storms. Strim vegetation 1m min. surround to structures and keep hard aprons free from silt and debris.
	Brushing and Vacuuming Permeable Paving	3 times per year at the end of winter, mid-summer, after autumn leaf fall, or as required based on site specific observations.
OCCASIONAL TASKS	Pond Vegetation	<p>Annually cut (strim) at 100mm with cuttings removed to wildlife piles September - October or Maintain as a mosaic to be cut 25-30% in any one year at 100mm in September or October with cuttings removed to wildlife pile.</p> <p>Annually, or after prolonged periods of extreme events, embankments around the ponds should be checked for erosion and other issues that may stop them from functioning as required. If this is the case maintenance should then be carried out immediately, i.e. reseeding or re-turfing, to ensure these areas of embankment are working as expected and do not increase the risk to any adjacent properties.</p>
	Silt Management	<p>Annually or every 3 years as required. Where silt accumulates on apron or area in front of inlet or outlet then remove and land apply within design profile of SuDS.</p> <p>Where silt accumulates more than 150mm in base of permanent pond undertake a phased removal of silt subject to Client approval. Remove silt as instructed but not more than 30% of pond or wetland area at any one time and to an agreed depth but not subsoil layer. Retain as much representative existing vegetation as possible to ensure rapid re-colonisation of open areas. Stack excavated material adjacent to wetland to allow de-watering of silt. Undertake silt removal during September-</p>

		<p>October to minimise damage to protected wildlife and ensure re-growth of aquatic vegetation before winter.</p> <p>Spread excavated material on site above SUDS design profile, e.g. top of banks, in accordance with E.A. Waste Exemption Guidance.</p>
	<p>Stabilise and Mow Contributing and Adjacent Areas and Weed Removal</p>	<p>As required.</p>
<p>REMEDIAL ACTIONS</p>	<p>Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50mm of the level of the permeable paving</p>	<p>As required.</p>
	<p>Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance of the permeable paving or a hazard to users</p>	<p>As required.</p>
	<p>Rehabilitation of surface and upper sub-structure</p>	<p>As required; if infiltration performance is reduced as a result of significant clogging.</p>

5.0 Spillage – Emergency Action

Most spillages on development sites are on or in construction compounds that do not pose a serious risk to the environment if they enter the drainage in a slow and controlled manner with time available for natural breakdown in a treatment system.

Therefore, small spillages of oil, milk or other known organic substances should be removed where possible using soak mats as recommended by the Environment Agency with residual spillage allowed to bio-remediate in the drainage system.

In the event of a serious spillage, either by volume or of unknown or toxic compounds, then isolate the spillage with soil, turf or fabric and block outlet pipes from chamber(s) downstream of the spillage with a bung(s). (A bung for blocking pipes may be made by wrapping soil or turf in a plastic sheet or close woven fabric.)

Contact the Environment Agency immediately.