

Project name	Wykham Park Farm, Banbury		
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1. INTRODUCTION

The following is intended to outline the required maintenance and management plan for the site wide drainage infrastructure for the new development at Wykham Park Farm, Banbury. SuDS maintenance and management regimes for the individual development parcels will be subject to their own individual planning applications, and approved drainage strategies.

This document must be read in conjunction with the following drawings and documents:

- Drainage Layout - WPF-HYD-XX-XX-DR-C-0601 to 0605
- Drainage Strategy Report - WPF-HYD-XX-XX-RP-C-0003

Any maintenance requirement provided in this document is not intended to replace or supersede Thames Water's or management companies established maintenance programmes and regimes. The maintenance requirements provided in this technical design note reflects the requirements recommended in the CIRIA SuDS Manual, C753.

2. ADOPTION

The proposed adoption arrangement is identified on drawings WPF-HYD-XX-XX-DR-C-0601 to 0605.

All foul and surface water sewers serving domestic drainage will be offered to Thames Water for adoption. Following the implementation of the design and construction guidance for sewers in April 2020, all SuDS features includes swales and attenuation basins will be offered Thames Water for adoption. The adoption of SUD's features by Thames Water is subject to Thames Water's adoptability criteria.

All surface water sewers serving purely highway drainage will be offered to Oxfordshire County Council Highways for adoption.

3. SUDS MAINTENANCE

All SuDS features require regular monitoring and maintenance to ensure they continue to operate correctly and efficiently. SuDS features can be maintained by a range of people, including, but not limited to, property owners, highway authority or management companies. Maintenance operations are categorised under three levels: Regular Maintenance, Occasional Maintenance and Remedial Maintenance.

Regular Maintenance: Consists of basic tasks to be carried out on a frequent and predictable schedule. Inspections and monitoring of the SuDS feature should be undertaken during these visits. During the

first year of operation these visits should be undertaken monthly and after all major storm events to ensure SuDS feature is operating to design standard.

Occasional Maintenance: Consists of tasks which are required to be undertaken on a less frequent and predictable basis, such as sediment removal.

Remedial Maintenance: These are intermittent tasks required to rectify faults which occur within the SuDS feature. These are undertaken as required, but anticipated to be infrequent as long as the best practice guidance during design, construction and maintenance are followed.

Table 1 summarises the recommended maintenance activities required for SuDS components included in the proposed drainage scheme.

Table 1 - SuDS components operation and maintenance activities (extract from CIRIA C753 SuDS manual)

Operation and maintenance activity	Detention Basin	Swale
Regular maintenance		
Inspection	X	X
Litter and debris removal	X	X
Grass cutting	X	X
Weed and invasive plant control	O	
Shrub management (including pruning)	O	O
Shoreline vegetation management	O	
Aquatic vegetation management	O	
Occasional maintenance		
Sediment management	X	X
Vegetation replacement	O	O
Vacuum sweeping and brushing		
Remedial maintenance		
Structure rehabilitation / repair	O	O
Infiltration surface reconditioning		O

Key

X – Will be required

O- May be required

3.1 Detention Basin

3.1.1 Access

Access to the detention basin A will be provided via an adoptable highway within the adjacent development parcel. Access to detention basin B will be provided via the pumping station access road.

3.1.1.1 Regular Maintenance

Removal of litter and debris - All litter and debris should be collected and removed from site regularly.

Grass Cutting - All grassed areas, should be mown as part of the general operations for the open spaces. Frequency of cutting will depend on surrounding land uses and public requirements.

Vegetation Management. Weeds and invasive species should be removed to prevent SuDS features becoming overgrown. Where permitted, the use of herbicides and pesticides should be limited, to prevent pollution of ground water and downstream watercourses.

Sediment inspection and removal - Monitor silt accumulation rates and establish removal frequencies.

Removal of litter and debris. Litter and debris could block the drainage inlets and outlets leading to flooding. All litter and debris should be collected and removed from site regularly.

3.1.1.2 Occasional Maintenance

Sediment removal - The sediment which builds up within the main body of the pond will require removal every 5 years or as required. This sediment should be disposed of in a suitable manner, in accordance with best practice.

Reseed areas of poor vegetation growth.

3.1.1.3 Remedial Maintenance

Remedial maintenance may be required to be undertaken by a suitably qualified contractor.

Structural Rehabilitation or Repair. In the event there is a structural failure of the system, e.g. deformed, damaged and eroded sections will require rectifying to ensure the system continues to operate as designed.

3.2 Swale

3.2.1 Access

Access to the swales will be provided via an adoptable highway within the adjacent development parcel.

3.2.2 Regular Maintenance

Removal of litter and debris - All litter and debris should be collected and removed from site regularly.

Grass Cutting - All grassed areas, should be mown as part of the general operations for the open spaces. Frequency of cutting will depend on surrounding land uses and public requirements.

Sediment inspection and removal - Monitor silt accumulation rates and establish removal frequencies.

Removal of litter and debris. Litter and debris could block the drainage inlets and outlets leading to flooding. All litter and debris should be collected and removed from site regularly.

3.2.3 Occasional Maintenance

Reseed areas of poor vegetation growth.

3.2.4 Remedial Maintenance

Remedial maintenance may be required to be undertaken by a suitably qualified contractor.

Structural Rehabilitation or Repair. In the event there is a structural failure of the system, e.g. deformed, damaged and eroded sections will require rectifying to ensure the system continues to operate as designed.

Remove and dispose of contaminates such as oil or petrol residues using sage standard practises.

3.3 Flow Control (Vortex)

3.3.1 Access

Access to the flow control chambers with be provided via an adoptable highway within the development parcel and via the pumping station access road.

3.3.2 Regular Maintenance

Visual inspection - The flow control should be inspected for deficiencies, such as: blockages, condition of the structure and signs damage to mechanical devices such as penstocks.

Removal of litter and debris. Litter and debris could block the drainage network and flow control devices leading to flooding. All litter and debris should be collected and removed from site regularly.

3.3.3 Occasional Maintenance

Sediment removal - The sediment which builds up within the control chamber will require removal as required, to ensure efficient operation of the control device. This sediment should be disposed of in a suitable manner, in accordance with best practice.

3.3.4 Remedial Maintenance

Remedial maintenance may be required to be undertaken by a suitably qualified contractor.

Structural Rehabilitation or Repair. In the event there is a structural failure of the system, e.g. deformed or damaged sections will require rectifying to ensure the system continues to operate as designed.

4. MAINTANENCE SCHEDULE

A schedule of inspection and maintenance actions is required to ensure the successful operation of the surface water drainage infrastructure for the development. The purpose of this is to inform the private landscape and infrastructure maintenance contract that will form part of the formal plan of works for the site once it is occupied and operational.

The proposed typical maintenance schedule covering a period between 3 months and 5 years is appended to this document. The starting month may vary depending on the construction programme, but the frequency will still apply.

In addition to the maintenance schedule a full independent condition review and report must be produced by a relevant competent professional in order to determine whether remedial works or improvements are required.

