

Reference: MM-A-02

SUDS Element:

SUDS Attenuation Pond

Function Served:

Pond serves as storage feature prior to discharge to a gravity drainage system

Features:

Retained wet base
Gabion retaining to the higher side

Owned:

Management Company

Location:

South West Landscaped POS area

Routine Maintenance (typically monthly):

Maintenance Activity	Comments	Frequency
Litter and debris removal	Litter and debris (removed prior to any grass cutting activity) to minimise risk of shredding litter. Particular attention should be paid to inlet/outlet pipes. i.e. rake the trash screen	Monthly
Grass cutting: Landscaped areas and access routes	All cuttings to be removed from SUDS components	Monthly (during growing season) or as required
Cut and remove bank vegetation from water's edge to a minimum of 1m above water level.	To provide access to pond edge/emergent vegetation for maintenance inspection.	Monthly (for the first 3 years) then as required.
Manage other vegetation and remove nuisance plants.	To include wetland plants in permanent pools. Weeding should be conducted by hand or use non-toxic and biodegradable weed killer. Invasive species should be removed in accordance with best practice	Monthly (at implementation) then as required.
Inspect structures for evidence of poor operation		Monthly
Inspect banksides, structures, pipework etc for evidence of physical damage		Monthly
Inspect water body for signs of eutrophication		Monthly (May-October)
Safety signage and safety equipment inspection	Ensure permanent and seasonal safety signs are in place. Safety equipment should be inspected to ensure it available and in good repair and replaced where necessary.	Monthly

Occasional Maintenance (typically bi-annually):

Maintenance Activity	Comments	Frequency
Inspect inlets and pre-treatment components for silt accumulation	Includes visual inspection of inlet chamber, forebay and inspection of flow control. Contamination testing to be undertaken on accumulated silts to confirm inert status or inform disposal options.	Half yearly
Check mechanical devices within chambers	Includes cracking of seals on penstocks, testing hydro-brake by pass door	Half yearly
Ice warning safety signage		To be erected at the end of September and removed at the end of March

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General Notes:

Maintenance strategy should be reviewed on a regular basis and performance of the maintenance activities assessed.

Reference should be made to recognised industry standards in undertaking maintenance.

Where activities are required outside ownership permission must be sought from relevant party.

Refer to section 22 of CIRIA C697 for discussion on maintenance techniques.

Requirement for reporting of inspections to be confirmed by responsible party. May be required as evidence of activities to prove activity as part of funding arrangements.

Annual Activities:

Maintenance Activity	Comments	Frequency
Tidy all dead growth before start of growing season		Annually
Prune and trim trees and remove cuttings	Where vegetation is planted as a barrier management of upward growth to encourage outward growth is necessary (after shrub seedlings are established).	As required
Remove sediment from forebay	Care should be taken to protect base; this may include digger buckets without teeth etc.	As required
Inspect ancillary structures	Inspection of gabion engineered banks for signs of deterioration. Remove troublesome plant growth. Undertake repairs to cages or provide additional stone infill as required.	Annually
Remove sediment from control chamber sump	Remove accumulated silt with suction tanker when 50% full.	As required

Infrequent/Corrective Activities:

Maintenance Activity	Comments	Frequency
Remove dead vegetation from pond edge		1-3 years or as required
Hand cut submerged and emergent aquatic plants (at a minimum of 0.1m above pond base; max 1/3 of pond surface)	Thinning of emergent barrier vegetation. Areas of tall emergent plants obscuring visual inspection (for safety) of the open water should be regularly trimmed.	As required
Re-seed or replant areas of poor vegetation growth	Any reseeding noted is to be undertaken in the next appropriate planting season.	As required
Remove sediment from main body of large ponds when pool volume is reduced by 20%	Sediment level will be dependent upon presence and type of upstream SUDS, size and land use of catchment as well as local soil conditions. Refer to above point for base.	>25 years usually or as required
Repair erosion or other damage		As required
Aerate pond when signs of eutrophication are detected		As required
Repair/rehabilitation of inlets, outlets and overflows.		As required
Rehabilitation following a pollution event		As required