

Cellular Tanks Operation & Maintenance Requirements

Regular inspection and maintenance is required to ensure the effective long-term operation of below ground modular storage systems.

Specific maintenance needs of the system should be monitored, and maintenance schedules adjusted to suit requirements.

Modular systems – operation and maintenance requirements

Maintenance schedule	Required action	Recommended Frequency
Regular maintenance	Inspect and indentify any areas that are not operating correctly. If required, take remedial action	Monthly for three months then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae, or other matter; remove and replace surface infiltration medium as necessary	Annually
	Remove sediment from pretreatment structures and/or internal forebays	Annually, or as required
Remedial actions	Repair/rehabilitate inlets, outlets, overflows, and vents	As required
Monitoring	Inspect/check all inlets, outlets, overflows, and vents to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment buildup and remove if necessary	Every five years or as required

Maintenance activities should be detailed in the health and safety plan and a risk assessment should be undertaken.

Manhole and Inspection Chamber Maintenance Schedule

Regular inspection and maintenance of manholes and inspection chambers are essential to ensure that the drainage system remains functional, safe, and free-flowing. Adequate access should be provided to all chambers and covers for inspection and maintenance, including for appropriate equipment and personnel.

All inspection and maintenance activities should be undertaken by competent personnel in accordance with current health and safety legislation and confined space entry procedures.

Manhole and Inspection Chamber Operation and Maintenance Requirements

Required Action	Frequency	Notes / Responsible Party
Visual inspection of chamber covers and frames for damage or displacement	Quarterly	Site maintenance team
Check for surface debris or sediment obstructing cover access	Quarterly	Site maintenance team
Inspect chamber walls and benching for cracks, displacement, or corrosion	Annually	Site maintenance team
Check for signs of infiltration, leakage, or excessive silt build-up	Annually	Site maintenance team
Remove silt, debris, or obstructions from chamber base and benching	Annually	Site maintenance team
Jet wash or vacuum clean chambers where necessary to maintain free flow	As required	Drainage maintenance contractor
Inspect step irons or access ladders for corrosion or instability	Annually	Drainage maintenance contractor
Check and reseal or replace damaged covers or frames	As required	Site maintenance team / contractor
Monitor and record any recurring defects or blockages	Ongoing	Site maintenance team

All inspections and maintenance operations should be documented, with reports kept for review and compliance purposes. Records should detail the date, nature of inspection, findings, and any remedial actions undertaken.

Orifice Plate Flow Control Maintenance Requirements

Regular inspection and maintenance are required to ensure the effective long-term operation of flow control systems

Specific maintenance needs of the system should be monitored, and maintenance schedules adjusted to suit requirements.

Flow control – operation and maintenance requirements

Maintenance schedule	Required action	Recommended Frequency
Project completion	Following installation of the Flow Control it is vitally important that any extraneous material i.e. building materials are removed from the unit and the chamber.	On completion of the project by the contractor
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly then annually
	Debris removal from chamber (where may cause risks to performance)	As required during inspections
	Remove sediment	Annually, or as required
Remedial actions	Repair / replace flow control if damaged	As required
Monitoring	Inspect/check to ensure that they are in good condition and operating as designed	Annually and after large storms

Maintenance activities should be detailed in the health and safety plan and a risk assessment should be undertaken.

Swales Operation & Maintenance Requirements

Regular inspection and maintenance is important for the effective operation of swales as designed.

Adequate access must be provided to all swale areas for inspection and maintenance, including for appropriate equipment and vehicles. Operation and maintenance requirements for swales are described below.

Swales operation and maintenance requirements

Maintenance schedule	Required action	Frequency
Regular maintenance	Remove litter and debris	Monthly, or as required
	Cut grass – to retain grass height within specified design range	Monthly (during growing season), or as required
	Manage other vegetation and remove nuisance plants	Monthly at start, then as required
	Inspect inlets, outlets, and overflows for blockages and clear of required	Monthly
	Inspect infiltration surfaces for ponding, compaction, silt accumulation, record areas where water is ponding for >48hrs	Monthly, or when required
	Inspect vegetation coverage	Monthly for six months, quarterly for two years, then bi-annually
	Inspect inlets and facility surface for silt accumulation, establish appropriate silt removal frequencies	
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 reseed	As required
	Re-level uneven surfaces and reinstate design levels	As required
	Scarify and spike topsoil layer to improve infiltration performance, break up silt deposits, and prevent compaction of the soil surface	As required
	Remove buildup of sediment on upstream gravel trench, flow spreader of the soil surface	As required
	Remove and dispose of oils or petrol residues using safe standard practices	As required
Monitoring	Inspect inlets, outlets and overflows for blockages, and clear if required	Monthly

Maintenance schedule	Required action	Frequency
	Inspect infiltration surfaces for ponding, compaction, silt accumulation. Record areas where water is ponding for >48 hours	Monthly, or when required
	Inspect inlets and facility surface for silt accumulation. Establish appropriate silt removal frequencies	Half yearly

Sediments excavated from swales that receive runoff from residential or standard road and roof areas are generally not toxic or hazardous material and can be safely disposed of by either land application or land filling. However, consultation should take place with the environmental regulator to confirm appropriate protocols. Sediment testing may be required before sediment excavation to determine its classification and appropriate disposal methods. For industrial site runoff, sediment testing will be essential. In the majority of cases, it will be acceptable to distribute the sediment on site if there is an appropriate safe and acceptable location to do so.

Many of the specific maintenance activities for swales can be undertaken as part of a general landscaping contract and so if landscape management is already required at site, should have marginal cost implications.

Maintenance activities should be detailed in the health and safety plan and a risk assessment should be undertaken.

Water Butts Operation & Maintenance Requirements

Water butts are low maintenance devices. The operation and maintenance requirements for water butts are described below.

Water butts operation and maintenance requirements

Maintenance schedule	Required action	Frequency
Regular maintenance	Cleaning of tank, inlets, outlets, gutters, withdrawal devices and roof drain filters of silts and other debris.	Annually (or following poor performance).
Occasional maintenance	Replacement of any filters.	As required.
Remedial actions	Repair of erosion damage, or damage to tank.	As required.
Monitoring	Inspection of the tank for debris and sediment build up.	Annually (or following poor performance).
	Inspection of inlets, outlets and withdrawal devices.	Annually (or following poor performance).
	Inspection of areas receiving overflow, for evidence of erosion.	After extreme storms.
	Inspection of roof drain filters.	Annually (or following poor performance).