

Filterra[®] High flow biofiltration

Filterra® biofiltration systems are optimised for high flow treatment and pollution removal.

Whilst similar to a typical biofiltration system (using 'sandy loam' filter media), Filterra biofiltration systems utilise a filter media blend that treats flows at a significantly higher flow rate than typical biofiltration filter media and the media is produced to strict quality control procedures. Filterra biofiltration systems can also achieve local stormwater pollution reduction targets with significantly less area (typically 0.3% of upstream area) relative to typical biofiltration systems (with 'sandy loam' media, typically 0.8 to 1.5% of upstream area).

How does it work?

During a storm, stormwater enters the Filterra biofiltration system through a pipe, kerb inlet, or sheet flow and ponds over the mulch layer, capturing heavy sediment and debris. Organics and microorganisms within the mulch layer trap and degrade metals and hydrocarbons. The mulch also provides a water retention function for the system's vegetation. Stormwater then flows through the engineered high flow media filtering fine pollutants and nutrients. Organic material in the media removes dissolved metals and acts as a food source for root-zone microorganisms. Treated water exits through an underdrain pipe or infiltrates (if designed accordingly).









Features

- High treatment flow rate (design flow rate of 3550mm/hour)
- Vegetation and 'natural' appearance (and treatment processes)
- Highly effective pollution removal
- Flow retention within vegetation, mulch and filter media
- Available in a range of configurations and sizes
- No confined space access requirements
- Multiple 'cells' for larger 'bioscape' systems

Benefits

- Reduced size (relative to conventional biofiltration systems)
- Low cost and easy installation, establishment and maintenance
- Landscaping augments site amenity and provides
 habitat and localised 'cooling' benefits
- No confined space access requirements







Configurations and Applications

The Filterra® biofiltration system can be arranged in a couple of ways such that it suits the site specific requirements for flow rate, hydraulics, accessibility and footprint restrictions. The standard configurations offered by Ocean Protect include pre-cast concrete tree-pits and BioScape in-situ construction. Filterra® is ideal for tight, highly developed sites, urban development projects, commercial parking lots, residential streets, and streetscapes.

Maintenance

As required for typical biofiltration systems, typical maintenance activities for Filterra[®] biofiltration systems includes overall system inspection, pruning of vegetation (as required) and removal of litter. The mulch layer for Filterra[®] biofiltration systems also should be replaced approximately every 6 to 12 months.

Speak to the team at Ocean Protect who can help you maintain your Filterra® biofiltration systems.

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