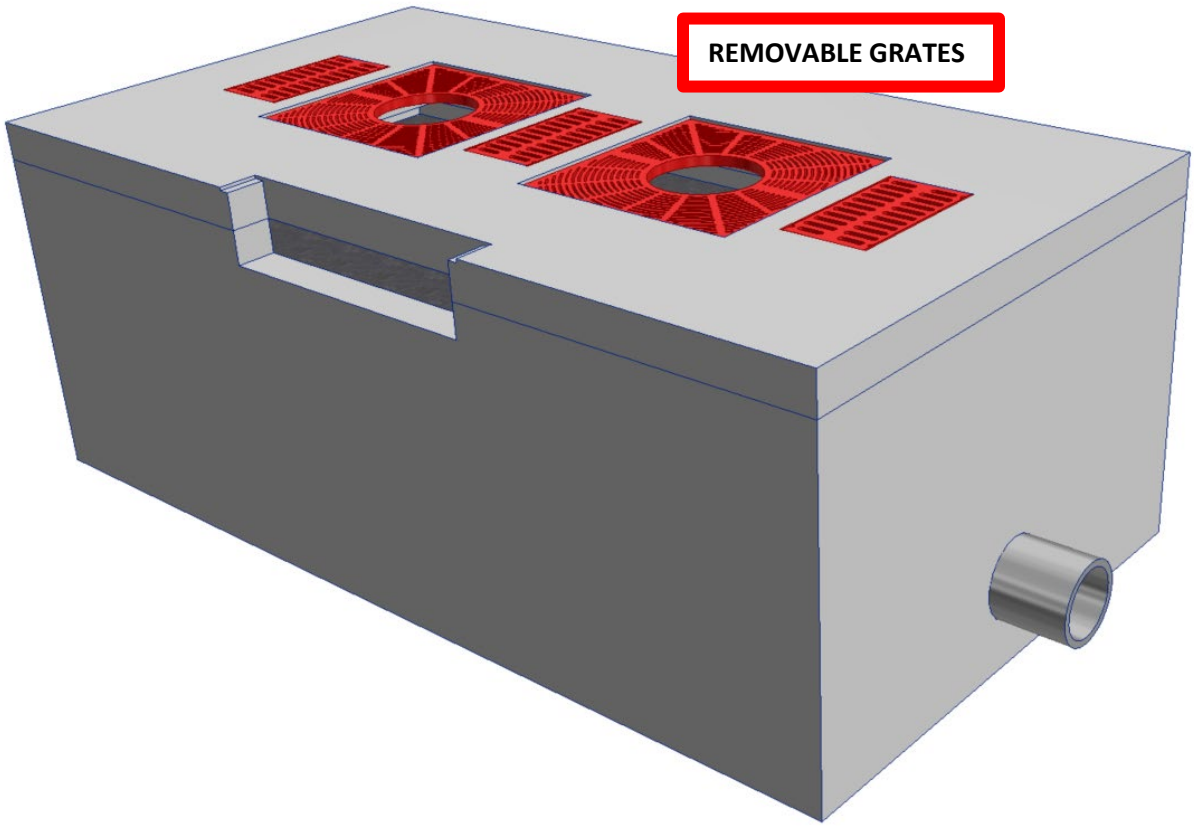
Hydro StormScape® HC Biofilter

Operation and Maintenance Instructions



Inspection

The frequency of inspection and maintenance can be determined in the field after installation. Based on site characteristics such as contributing area, types of surfaces (e.g., paved and/or landscaped), site activities (e.g., short-term or long-term parking), and site maintenance (e.g., sanding and sweeping), inspection and maintenance should be conducted at intervals of no more than six months during the first year of operation. Typically, maintenance is recommended once per year thereafter based on site conditions.

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Site personnel can determine if the Hydro StormScape High Capacity biofilter media is blinded by removing the trench grate covers and observing if any water is present in the vault. Any observed water pooling in the unit after 24 hours of a storm indicates that Hydro StormScape High Capacity biofilter is not properly draining and the media is clogged. Water pooling in the unit will be present and have an observable elevation above the top of the mulch.

The site-specific solids loading rate accumulating in the mulch and engineered filtration media will be determined during the first year of Hydro StormScape High Capacity biofilter operation. After completion of the first year of operation, the site-specific inspection and maintenance intervals for replacing the mulch and top surface of media will be established. Removal of floatables will occur at the same frequency unless the first year of operation indicates otherwise. Keeping to the established maintenance intervals is critical for long-term performance of any biofiltration system.

Maintenance Procedure

1. Clean any trash, debris or leaves that may have collected around the perimeter of the device
2. Inspect the curb inlet for trash, debris or leaves. Clean as needed
3. Remove the covers to access the surface of the media
4. Clean trash, debris and/or leaves on the surface of the mulch by hand or with a small rake
5. Loosen the top layer of media. If infiltration rate is below design rate (typically 350 in/hr) replace top inch of media
6. Replace covers
7. Record maintenance activities in an inspection and maintenance log

The removable grates at the top of the Hydro StormScape High Capacity Biofilter provide access to the surface of the media for maintenance personnel to enter the vessel and comfortably remove and replace the mulch and top layer of media, as well as remove any accumulated floatables.

Maintenance activities include inspection, floatables removal, sediment removal, and replacement of the top layer of media and mulch. Depending on the site, some maintenance activities are required at a greater frequency than others. All inspection and maintenance activities should be recorded in an inspection and maintenance log.

Good housekeeping practices upstream of the Hydro StormScape High Capacity Biofilter can significantly extend media life. For example, sweeping paved surfaces, collecting leaves and grass trimmings, and employing erosion control practices will reduce loading to the system. Construction stormwater discharge flows should not be directed to the system until all construction activities are complete and site stabilization is ensured to prevent inappropriate clogging of the device.

Solids Disposal

Sediment, floatables, gross debris, and spent media can generally be disposed of at a local landfill in accordance with local regulations. The toxicity of the residues produced will depend on the activities in the contributing drainage area. Testing of the residues may be required if they are considered potentially hazardous. In all cases, local regulators should be contacted about disposal requirements.