



APPENDIX D

SiteSaver Operations and Maintenance Manual

PHONE 815 941 4549
FAX 331 318 5347

WEB www.stormtrap.com
EMAIL info@stormtrap.com

1287 Windham Parkway
Romeoville, Illinois 60446



SiteSaver® Manufacturer's Instruction Manual

Regular inspections are recommended to ensure that the system is functioning as designed. Please contact your Authorized SiteSaver Representative if you have questions regarding the inspection and maintenance of the SiteSaver system. SiteSaver does not require entry into the system for maintenance; however, it is prudent to note that prior to entry into any underground storm sewer or underground structure, appropriate OSHA and local safety regulations and guidelines should be followed.

Inspection Scheduling

The frequency of inspections and maintenance is dependent on site specific loading conditions and rainfall frequency. Within the first year of operation, it is recommended that the unit be inspected quarterly to determine the rate of pollutant accumulation in order to develop a more accurate maintenance schedule. SiteSaver systems are recommended for inspection whenever the upstream and downstream catch basins and stormwater pipes of the stormwater collection system are inspected or maintained. This will minimize the cost of the inspection if it is done at the same time. If checked on an annual basis, the inspection should be conducted before the stormwater season begins to ensure that the system is functioning properly for the upcoming storm season.

Inspection Process

Inspections should be done such that a sufficient time has lapsed since the most recent rain event to allow for a static water condition. Visually inspect the system at all manhole and access opening locations. For debris accumulation, visually inspect the netting or screening basket components (if utilized) to determine the bag or basket capacity. Nets or baskets



containing only minor quantities of debris may be retained in place. It is recommended to replace the nets or clean the screening baskets when they appear 1/2 - 2/3 full. Failure to replace nets and/or remove floatables from bypass screening (if applicable) will lead to hydraulic relief, drain down deficiencies, and decrease the long-term functionality of the system.

For sediment accumulation, utilize either a sludge sampler or a sediment pole to measure and document the amount of sediment accumulation. To determine the amount of sediment in the system with a sludge sampler follow the manufacturer's instructions. If utilizing a sediment pole, first insert the pole to the top of the sediment layer and record the depth. Then, insert the pole to the bottom of the system and record the depth. The difference in the two measurements corresponds to the amount of sediment in the system. Finally, inspect the inlet pipe opening to ensure that the silt level or any foreign objects are not blocking the pipe.

SiteSaver units can also be installed with remote monitoring technology that measures the current capacity of trash and debris contained within the system and reports the data to any internet device to decrease the amount of physical inspections required. If a remote monitoring device is used, proper maintenance of the device, such as replacement of batteries, cleaning sensor, etc. needs to be completed to ensure functionality of the remote monitoring technology.

Maintenance Process – Debris Removal

Maintenance should be done utilizing proper personal protective equipment such as: safety glasses, hard-hat, gloves, first aid kit, etc. Maintenance should occur only when a sufficient time has lapsed since the most recent rain event to allow for a static water condition for the duration of the maintenance process.

In the case that only trash and floatables need to be removed, and a netting configuration or a removable screening basket is utilized, a vacuum truck is not required. However, a vacuum truck is required if a fixed screening basket configuration is utilized. If the maintenance event is to include oil removal and or sediment removal a vacuum truck or similar equipment would be needed.

Maintenance Process – Debris Removal for Netting Configurations

For floatable debris removal when a netting bag is utilized, lift the netting bag by the frame, moving it upwards along the netting support frame. To ease lifting the nets to the surface, gaff hooks or a service vehicle (crane/hoist/boom truck) may be used. Slowly raise the netting frame allowing water in the net to drain as it is raised to allow it to drip dry. Once the netting component is fully removed from the system, it should be properly disposed of per local, state, and federal guidelines and regulations. Typically, the netting component can be disposed of in a common dumpster receptacle.



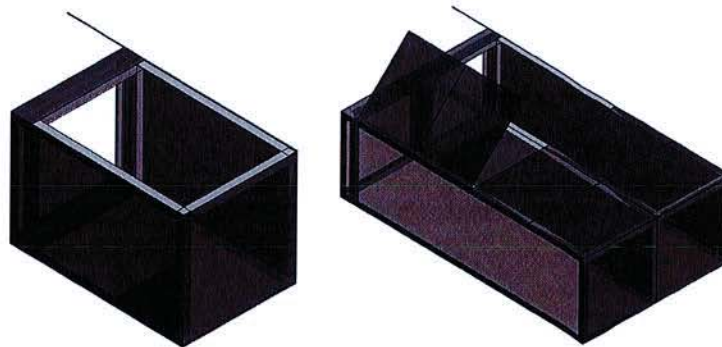
Maintenance Process – Debris Removal for Removable Basket Configurations

For floating debris removal when a removable basket is utilized, remove the screening basket by lifting the basket slowly moving it upwards along the support frame. Once the screening basket is fully removed from the SiteSaver system, empty the basket into a dumpster receptacle by either tipping the unit so the debris falls out the mouth of the basket or release the bottom latch in the basket. The latch opens the bottom section of the basket to drop debris into the receptacle. After the basket has been emptied, ensure that all latches are secured prior to placing the basket back into the SiteSaver system. Place the basket back into the SiteSaver system by sliding the netting frame down the support frame.

Removable basket configurations can also be maintained without removing the screening basket from the SiteSaver. If electing to perform maintenance without removing the basket, see the maintenance process for debris removal for fixed basket configurations below.

Maintenance Process – Debris Removal for Fixed Basket Configurations

For floatable debris removal when a fixed basket is utilized, a vacuum truck, or similar trailer mounted equipment can be used to remove the debris. Unlatch the top section of the screening basket and lift to access the inside of the basket. Take the vacuum hose and remove all debris from inside of the basket. After the basket has been emptied, ensure that the top section of the screening basket is closed, and all latches are secured.



Maintenance Process – Sediment Removal

For sediment removal, the SiteSaver is designed with clear access at both the inlet and outlet. A vacuum truck, or similar trailer mounted equipment, can be used to remove the sediment, hydrocarbons, and water within the unit. For more effective removal, it is recommended to use sewer jetting equipment or a spray lance to force the sediment to the vacuum hose. When the floor is sufficiently cleaned, fill the system back to its normal water elevation (to the pipe inverts).

Maintenance Process – Net Replacement

Install a new net assembly by sliding the netting frame down the support frame and ensure the netting lays over the plate assembly such that the netting is not restricted. To order additional disposable nets, contact your local SiteSaver representative. New nets come with tie wraps temporarily holding the net material to the frame component for easy handling and storage. It is not recommended to remove the tie wraps until the net is ready to be installed. The frame is tapered from top (widest part) to bottom and is also tapered from front (towards the sewer) to back. Cut the tie wraps that secures the netting material to the frame for shipment and lower the net down the guide rails. If debris has accumulated in the net support frame, remove the objects so the new net seats fully in the channel when installed.

When lowering the net, the following details should be exercised when placing the net:

- Watch the lowering to make sure that there are no unexpected entanglements.
- Be careful not to let the toe of the net get caught under the frame when it reaches the bottom of the support frame. This is typically accomplished by holding the toe of the net until after the net has started to prop into place.
- Ensure the netting lays over the plate assembly such that the netting is not restricted.



Maintenance Process – Clean Up, Disposal, and Documentation

Complete a post maintenance inspection to ensure that all components have been replaced and are properly secured within the SiteSaver device. It is a good practice to take time stamped photographs after every maintenance event to include within maintenance logs. After verifying all components, secure the access openings and ensure proper disposal of all pollutants removed during maintenance per local, state, and federal guidelines.

Proof of inspections and maintenance is the responsibility of the owner. All inspection reports and data should be kept on site or at a location where they will be accessible for years in the future. Some municipalities require these inspection and cleaning reports to be forwarded to the proper governmental permitting agency on an annual basis. Refer to your local and national regulations for any additional maintenance requirements and schedules not contained herein. Inspections should be a part of the standard operating procedure. It is good practice to keep records of rainfall events between maintenance events and the weight of material removed, even if no report is required.