



Urban Watershed Management Program
ATTN: Stormwater Review
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Annual Self-Certification Checklist

MEDIA FILTER / WATER QUALITY INLET / SWIRL SEPARATOR

(AKA: compost stormwater filter, peat filter, resin filter, sand filter, cartridge filter / trapping catch basin, oil and grit separator, or oil and water separator / vortex separator, hydrodynamic separator, swirl concentrator)

Inspection Date: _____ **Address:** _____ **Block / Lot #** _____ **Installation Date:** _____

Inspected By: Name: _____ **Phone:** _____ Property Owner Site Manager Contractor Other: _____

INSTRUCTIONS: All inspections, maintenance tasks and repairs are to be completed prior to the beginning of the rainy season (October 15). Mark all status boxes with S or U, where S = Satisfactory (no maintenance required), and U = Unsatisfactory (maintenance required). See the Media Filter, Water Quality Inlet, Swirl Separator Inspection instructions included in this packet for detailed descriptions of conditions requiring maintenance and further action. See note on page 2 for confined space entry safety requirements.

Item #	Inspection Item Description	Status	Indicate Action Required or Action Planned	Indicate Action Taken (Include Date Completed)
1	Unpleasant odors			
2	Access lid or hatch damaged / not operable / not accessible			
3	Access ladders or steps damaged or missing			
4	Facility offline, bypassed or not functional			
5	Extended drawdown time (Ponded water > 48 hrs.)			

6	Sediment and debris accumulation in sumps or chambers			
7	Visible contaminants / pollution on interior vault surfaces or in sump			
Item #	Inspection Item Description	Status	Indicate Action Required or Action Planned	Indicate Action Taken (Include Date Completed)
8	Surface ponding, flooding, or grate blockage			
9	Inlet, outlet and/or emergency overflow blockage			
10	Clogged screens, filters, or media			
11	Hydrocarbon separator or absorbent materials full / saturated / clogged			
12	Erosion around structure (if located in landscaped area)			
13	Piping, valves, vents or baffles damaged			
14	Structural damage (vault or adjacent area)			
15	Unauthorized modifications			
16	Mosquitos / larvae observed*			

*If mosquitos or mosquito larvae are observed, please contact the San Francisco Environmental Health Vector Control Program at (415) 252-3806, or email EnvHealth.DPH@sfdph.org.

SAFETY NOTE: Some of the systems covered in this checklist are confined spaces. A confined space is a space that has limited openings for entry or exit, is large enough for entering and working, and is not designed for continuous worker occupancy. Refer to and follow all OSHA requirements and regulations before entering a confined space. Visit <https://www.osha.gov/SLTC/confinedspaces/> for more information.



Maintenance Inspection Checklist

NOTE: The systems covered in this checklist alone do not constitute compliance with San Francisco's stormwater management requirements and are not considered treatment to the Maximum Extent Practicable (MEP) by the Regional Water Quality Control Board. These systems are best used as part of a treatment train.

Signature: _____ Date: _____



San Francisco Water Power Sewer

Services of the San Francisco Public Utilities Commission

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NOTE: These instructions are intended to be a companion piece to the Annual Self-Certification Checklist. The information contained herein is to be used to help the preparer of the Annual Self-Certification Checklist accurately conduct an inspection and properly complete the form.

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Abbreviations: SMR: San Francisco Stormwater Management Regulations and Design Guidelines; SCP: Stormwater Control Plan; SMO: San Francisco Stormwater Management Ordinance; BMP: Best Management Practice (Media Filter, etc.); GI: Green Infrastructure

Item #	Inspection Item Description	Inspection Instructions and Explanation
1	Unpleasant odors	<p>Area of Concern: Several maintenance-related factors can lead to unpleasant odors in GI installations. Any facility that consistently fails to draw down completely within 48 hours can become anaerobic. The buildup of bacteria inside the facility, along with decaying organic material and trash, can cause these odors.</p> <p>Maintenance Solution: For more information on ponded water and extended drawdown time, see Item #5 below.</p>
2	Access lid or hatch damaged / not operable / not accessible	<p>Area of Concern: Inspection and maintenance tasks rely on unobstructed access to the detention vault structure. Note if the vault is inaccessible for any reason and take steps to correct the issue to restore accessibility.</p> <p>Maintenance Solution: Corrective measures may range from simply lubricating access hatch hinges to removing and replacing the entire access hatch or manhole frame and lid.</p>
3	Access ladders or steps damaged or missing	<p>Area of Concern: Inspection and maintenance tasks rely on unobstructed access to the detention vault structure, which is facilitated by ladders or steps cast into the vault walls. Note if the vault steps are damaged and take steps to correct the issue and restore accessibility.</p> <p>Maintenance Solution: Repair or replace damaged or missing ladders or steps.</p>

Item #	Inspection Item Description	Inspection Instructions and Explanation
4	Facility offline, bypassed or not functional	<p>Area of Concern: To provide floatable and sediment capture from stormwater upstream, these facilities must be online and working properly.</p> <p>Maintenance Solution: To ensure that pretreatment devices are online and working properly during dry weather, run a garden hose or other water source into a nearby cleanout or inlet to test that water enters and exits the pretreatment device before accumulating in the detention vault. If these facilities are missing, unhooked or damaged, replace with a new device.</p>
5	Water in the facility during dry season / extended drawdown time of > 48 hrs	<p>Area of Concern: Ponded water resulting from extended drawdown times beyond 48 hours can lead to several problems such as unpleasant odors, lack of capacity to accommodate runoff from successive storms, and creation of mosquito habitats.</p> <p>Ponded water and drawdown failure can be caused by the following:</p> <ul style="list-style-type: none"> • large amounts of sediment or debris accumulation in the facility • blocked, clogged, or broken inlet piping • blocked, clogged or broken outlet piping <p>Maintenance Solution: Inspecting the facility can be done by removing the lid or opening the access hatch and visually inspecting for standing water or excessive debris accumulation.</p> <p>Clogged outlet pipes can be cleared by jetting or snaking the pipe or culvert, and by removing accumulated debris and sediment from the bottom of the structure with hand tools or by use of a vactor truck. Video inspection of the drain pipes may be performed to determine the source of the pipe failure or blockage.</p>
6	Sediment and debris accumulation in sumps or chambers	<p>Area of Concern: Trash, debris, and sediment accumulation can clog outflow structures, which could lead to extended drawdown times. Clogged outflow structures can also lead to overflowing and flooding.</p> <p>Maintenance Solution: All trash and debris should be removed from the facility before the start of the rainy season (October 15) or as frequently as site conditions dictate, with hand tools or by use of a vactor truck, and discarded at an appropriate facility.</p>
7	Visible contaminants / pollution on interior vault surfaces or in sump	<p>Area of Concern: Visible contaminants and pollution can range from inert substances to hazardous substances that impact environmental or human health.</p> <p>Examples of inert contaminants are masonry, plaster or concrete "washout," and masonry or roadway saw cutting slurry and residue. Examples of hazardous contaminants are petroleum-based substances, caustic chemicals, pesticides, and herbicides. These pollutants can often be identified by sight or smell when they become deposited in a detention vault.</p> <p>If pollutants are detected, investigations must be conducted to determine the source of the contaminant, mitigate that source, and then take steps to clean up the contamination.</p> <p>Maintenance Solution: For inert substances, cleanup can typically be conducted by regular maintenance personnel by simply scraping off or pressure washing / vactoring and discarding the contaminated material at an appropriate facility. Hazardous substance cleanup will require specially trained and licensed contractors and special disposal conforming to local and national laws and regulations.</p>



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Item #	Inspection Item Description	Inspection Instructions and Explanation
8	Surface ponding, flooding, or grate blockage	<p>Area of Concern: Some of the systems listed in this checklist can directly receive surface runoff through an at-grade grate or inlet structure. The buildup of trash and debris on the grate can cause blockages that can create localized ponding and flooding.</p> <p>Maintenance Solution: If there is a large amount of debris accumulating near the inlet structure, the debris must be removed and the source of the debris must be controlled prior to the beginning of the rainy season (October 15), before each forecast storm if site conditions require, and/or as frequently as site conditions dictate. Trash and debris must be removed by hand or with a vactor truck and discarded at an appropriate facility.</p>
9	Inlet, outlet, and/or emergency overflow blockage	<p>Area of Concern: Trash and debris can create blockages at the inlet and outlet points or at the overflow structure of these systems, inhibiting the flow of water into, through, or out of the facility.</p> <p>Inlet blockages can cause stormwater flows to bypass the system or only allow partial flows into the system, creating a situation where the facility is non-functioning or underperforming. Inlet and outlet structure blockages can create excessive ponding within and around the vault, potentially leading to hazardous conditions and property damage.</p> <p>Maintenance Solution: Blockages must be cleared before the start of the rainy season (October 15), before each forecast storm if site conditions require, and/or as frequently as site conditions dictate. Trash and debris must be removed by hand or with a vactor truck and disposed of at an appropriate facility. Overflow structure grates, sumps, and traps must be cleared of debris by hand or vactor truck and disposed of at an appropriate facility.</p>
10	Clogged screens, filters, or media	<p>Area of Concern: Sediment and debris accumulation in these devices is normal and expected. However, steps must be taken to remove sediment and debris accumulation on an annual basis (or more often) to keep the system functioning properly.</p> <p>For filter cartridge and media filter maintenance, refer to the manufacturer's guidelines for proprietary systems.</p> <p>Maintenance Solution: Accumulated sediment and debris must be removed by hand or by vactor truck before the start of the rainy season (October 15) or as frequently as site conditions dictate, and discarded at an appropriate facility.</p>
11	Hydrocarbon separator or absorbent materials full / saturated / clogged	<p>Area of Concern: Some water quality inlets and swirl separators are designed to remove hydrocarbons, grease, and other petroleum-based contaminants.</p> <p>Maintenance Solution: Inspect petroleum-absorbent materials for saturation and change if necessary (if applicable) or use a vactor truck to remove accumulated materials from the oil/grease separator chamber and dispose of the contaminated material at an appropriate facility.</p>

Item #	Inspection Item Description	Inspection Instructions and Explanation
12	Erosion around structure (if located in landscaped area)	<p>Area of Concern: If these systems are located in a landscaped area, inflow and water movement to these systems may cause erosion and scouring of the surrounding surface over time or immediately after construction during the plant grow-in period.</p> <p>Erosion and the sediment created by erosion can be detrimental to the facility and create blockages and clogging in underdrains and outflow structures.</p> <p>Maintenance Solution: Repair measures must include identifying and correcting the cause of the erosion, repairing the erosion damage, and removing any sediment created by the erosion process.</p>
13	Piping, valves, vents, or baffles damaged	<p>Area of Concern: These systems can contain many structural components that play key roles in the function of the installation. Inlet and outlet piping that directs stormwater to and from the facility, vent pipes and cleanouts that provide maintenance access and provide air movement and venting, along with baffles to separate floating and settled debris from the stormwater are all key components. If any of these components are damaged, the function of the system may be compromised.</p> <p>Maintenance Solution: Note if these components are damaged and take steps to correct the issue and restore the component's function.</p>
15	Structural damage to vault or major components	<p>Area of Concern: Minor damage to structural components such as walls, floors, baffles and lids should be repaired on a yearly basis. These minor repairs can consist of, but are not limited to, patching chips and cracks to concrete structures.</p> <p>More significant structural damage, such as damage caused by nearby construction work or natural disasters must be repaired as soon as possible.</p> <p>Maintenance Solution: Major repairs can consist of removal and replacement of damaged lids, walls, floors, baffles or outflow structures, or structural bracing and supplemental reinforcement of failing structural components.</p>
14	Unauthorized modifications	<p>Area of Concern: Unauthorized modifications consist of any changes to a structure that deviate from the approved construction documents. These modifications can take place during construction or can happen over time after the facility is constructed.</p> <p>The SMR Maintenance Agreement Exhibit B recorded on the deed of the property provides the original approved construction documents that can be referred to and used to determine if modifications have been made.</p> <p>Maintenance Solution: All unauthorized modifications must be corrected by returning the vault to its original configuration as described in the approved construction documents contained in the SMR Maintenance Agreement Exhibit B.</p>
16	Mosquitos / larvae observed inside vault*	<p>Area of Concern: Ponded water resulting from extended drawdown times beyond 48 hours may lead to the development of a mosquito habitat.</p> <p>Maintenance Solution: See Item #3 above for remedies to extended drawdown times. For more information on mosquito control visit http://www.sfdph.org/dph/eh/WestNile/default.asp or http://www.sfmosquito.org/. If mosquitos or mosquito larvae are observed, please contact the San Francisco Environmental Health Vector Control Program at (415) 252-3806, or email EnvHealth.DPH@sfdph.org. Also, consult with a licensed professional pest control service for eradication, as appropriate.</p>

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