



Urban Watershed Management Program  
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**Annual Self-Certification Checklist**

**INFILTRATION TRENCH  
(AKA: soakage trench)**

**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 an S or U, where S = Satisfactory (no maintenance required), and U = Unsatisfactory (maintenance required). See the Infiltration Trench Inspection instructions included in this packet for detailed descriptions of conditions requiring maintenance and further action.

Item #	Inspection Item Description	Status	Indicate Action Required or Action Planned	Indicate Action Taken (Include Date Completed)
1	Unpleasant odors			
2	Extended drawdown time (Ponded water > 48 hrs.)			
3	Excessive trash / debris accumulation			
4	Vandalism / catastrophic damage to components or entire system			
5	Visible surface contaminants / pollution (if applicable)			
6	Unauthorized modifications			
7	Sediment accumulation on trench surface (if applicable)			

Item #	Inspection Item Description	Status	Indicate Action Required or Action Planned	Indicate Action Taken (Include Date Completed)
8	Inlet, outlet or overflow structure blockage			
9	Structural damage (trench edges or outlet structure)			
10	Mosquitos or mosquito 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](mailto:EnvHealth.DPH@sfdph.org).

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## Annual Self-Certification Checklist Instructions

### INFILTRATION TRENCH (AKA: soakage trench)

**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.

**Abbreviations:** SMR: San Francisco Stormwater Management Regulations and Design Guidelines; SCP: Stormwater Control Plan; SMO: San Francisco Stormwater Management Ordinance; BMP: Best Management Practice (Infiltration Trench); GI: Green Infrastructure

Item #	Inspection Item Description	Inspection Instructions and Explanation
1	Unpleasant odors	<p><b>Area of Concern:</b> Several maintenance-related factors can lead to anaerobic conditions that create unpleasant odors in GI installations. Any installation that consistently fails to draw down completely within 48 hours can become anaerobic. The buildup of bacteria in an anaerobic section of the facility, along with decaying organic materials, can cause these odors.</p> <p><b>Maintenance Solution:</b> For more information on ponded water and extended drawdown time, see Item #2 below.</p>
2	Extended drawdown time (Ponded water > 48 hrs.)	<p><b>Area of Concern:</b> Ponded water resulting from extended drawdown times beyond 48 hours can lead to several problems such as reduced filtration capacity, unpleasant odors, plant die-off, 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"> <li>• large amounts of sediment accumulation in the infiltration trench aggregate</li> <li>• blocked clogged or broken underdrains</li> <li>• blocked or clogged outflow structures and/or sand traps</li> <li>• the improper use of geotextiles in the infiltration trench</li> </ul> <p>Inspecting the underdrain for clogging can be done visually by looking for standing water in the cleanout or by running a garden hose into the cleanout and determining if the water flows freely or backs up and overtops the cleanout pipe. Alternately, video inspection of the underdrain pipe may be performed to determine the source of the underdrain failure.</p> <p>Inspecting the outflow structure or sand trap can be done by removing the lid or grate from the structure and visually inspecting for standing water or excessive debris accumulation.</p> <p><b>Maintenance Solution:</b> Clogged underdrains and outflow structures can be cleared by jetting or snaking the underdrain pipe or culvert that connects the structure to the sewer and by removing accumulated debris and sediment from the bottom of the structure.</p> <p>The removal of clogged subsurface geotextiles requires the removal of the infiltration trench aggregate.</p>

Item #	Inspection Item Description	Inspection Instructions and Explanation
3	Excessive trash / debris accumulation	<p><b>Area of Concern:</b> Excessive trash or debris accumulation causes problems in GI installations that extend beyond poor aesthetics. Trash and debris accumulation can inhibit plant growth, clog, or inhibit the infiltration capacity of the aggregate and clog outflow structure grates. Clogged or inhibited infiltration capacity could lead to extended drawdown times and unwanted ponding. Additionally, clogged outflow structure grates can lead to overflowing and flooding.</p> <p><b>Maintenance Solution:</b> All trash and debris should be removed from facility before the start of the rainy season (October 15) or as frequently as site conditions dictate. All material should be discarded at an appropriate facility.</p>
4	Vandalism / catastrophic damage to components or entire system	<p><b>Area of Concern:</b> Vandalism can range from minor issues like graffiti and tearing out/stealing plants to destruction of the entire irrigation system. Catastrophic damage can result from vehicles driving into or through the facility, trampling caused by large amounts of pedestrians or animals walking through the BMP, or construction/repair of nearby utilities and structures that impact the BMP.</p> <p><b>Maintenance Solution:</b> Repair of vandalism can consist of simply removing graffiti or planting individual replacement plants. Repair of catastrophic damage can consist of completely reconstructing the BMP.</p>
5	Visible surface contaminants / pollution (if applicable)	<p><b>Area of Concern:</b> Visible surface contaminants and pollution can range from inert substances that can cause aggregate clogging to hazardous substances that impact plant, environmental, or human health. 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 on the surface of a facility.</p> <p><b>Maintenance Solution:</b> 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. For inert substances, cleanup can typically be conducted by regular maintenance personnel by simply scraping off the contaminated surface material and discarding it at an appropriate facility. If aggregate is removed by the cleanup process, any lost aggregate materials must be replaced. Hazardous substance cleanup will require specially trained and licensed contractors and special disposal conforming to local and national laws and regulations.</p>
6	Unauthorized modifications	<p><b>Area of Concern:</b> Unauthorized modifications consist of any changes to a BMP that deviate from the approved construction documents included in the project's SMR Maintenance Agreement Exhibit B. These modifications can take place during construction (i.e., aggregate or plant substitutions with inferior components) or can happen after the BMP is constructed (i.e., reducing the footprint of the BMP to accommodate an addition to a nearby structure).</p> <p><b>Maintenance Solution:</b> 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. All unauthorized modifications must be corrected by returning the BMP to its original configuration, as described in the approved construction documents contained in the SMR Maintenance Agreement Exhibit B.</p>
7	Sediment accumulation on trench surface (if applicable)	<p><b>Area of Concern:</b> Sediment accumulation in BMPs is normal and expected. Sediment and debris can collect in the curb cut (or inlet structure), in the forebay (or rock cobble energy dissipater), or at the low point of the facility.</p> <p><b>Maintenance Solution:</b> Steps must be taken to remove sediment accumulation on an annual basis (or more often, depending on site conditions) to keep the BMP functioning properly. This built-up sediment must be removed to ensure that water can flow freely into and through the BMP, as well as to maintain aggregate infiltration capacity. Typical removal methods consist of scraping up sediment with shovels and properly disposing of the sediment at an approved facility.</p>



# San Francisco Water Power Sewer

Services of the San Francisco Public Utilities Commission

## Annual Self-Certification Checklist Instructions

Item #	Inspection Item Description	Inspection Instructions and Explanation
8	Inlet, outlet, or overflow structure blockage	<p><b>Area of Concern:</b> Trash, debris, and poorly-sited or overgrown plant material can create blockages at the inlet and outlet points or at the overflow structure of facilities, inhibiting the flow of water into, through, or out of the facility. Inlet blockages can cause stormwater flows to bypass the BMP or only allow partial flows into the BMP, creating a situation where the BMP is non-functioning or underperforming. Inlet, outlet, and overflow structure blockages can also create excessive ponding within and around the BMP, potentially leading to hazardous conditions and property damage.</p> <p><b>Maintenance Solution:</b> Blockages must be cleared before the start of the rainy season (October 15), before each forecasted storm if site conditions require, and/or as frequently as site conditions dictate. Trash and debris must be removed by hand or with hand tools and discarded at an appropriate facility. Poorly-sited or overgrown plant material can be transplanted to another location within the BMP or discarded as compost. Overflow structure grates, sumps, and traps must be cleared of debris by hand, hand tools, or a vactor truck and disposed of at an appropriate facility.</p>
9	Structural damage (trench edges or outlet structure)	<p><b>Area of Concern:</b> Minor damage to structural components such as curbs, walls, trench drains, and outlet structures should be repaired on a yearly basis. More significant structural damage, such as damage caused by auto accidents, nearby construction work, or natural disasters must be repaired as soon as possible.</p> <p><b>Maintenance Solution:</b> Minor repairs can consist of, but are not limited to, patching chips and cracks to concrete structures and resetting outlet structure frames and grates. Major repairs can consist of removal and replacement of damaged curbs, walls, outflow structures, or structural bracing and supplemental reinforcement of failing structural components.</p>
10	Mosquitos or mosquito larvae observed	<p><b>Area of Concern:</b> Ponded water resulting from extended drawdown times beyond 48 hours may lead to the development of a mosquito habitat.</p> <p><b>Maintenance Solution:</b> See Item #2 above for remedies to extended drawdown times. For more information on mosquito control visit <a href="http://www.sfdph.org/dph/eh/WestNile/default.asp">http://www.sfdph.org/dph/eh/WestNile/default.asp</a> or <a href="http://www.sfmosquito.org/">http://www.sfmosquito.org/</a>. If mosquitos or mosquito larvae are observed, please contact the San Francisco Environmental Health Vector Control Program at (415) 252-3806, or email <a href="mailto:EnvHealth.DPH@sfdph.org">EnvHealth.DPH@sfdph.org</a>. Also, consult with a licensed professional pest control service for eradication, as appropriate.</p>