

SECTION 9. CONTROL MEASURE MAINTENANCE

Continued effectiveness of control measures specified in the 2010 Guidance Document depends on inspection and maintenance. To ensure that such maintenance is provided, the City requires the submittal of a Maintenance Plan and execution of a Maintenance Agreement with the owner/operator of stormwater control measures prior to issuance of the Building Permit for a private development project, which may include one or more of the control measures detailed in Sections 7 and 8. The property owner or his/her designee is responsible for complying with the Maintenance Agreement. Requirements for the Maintenance Plan and Maintenance Agreement are presented and discussed in this section. Sample Maintenance Agreements are provided in Appendix D.

9.1. Maintenance Plan

A post-construction Maintenance Plan shall be prepared and submitted to the City as part of the Project Stormwater Quality Control Measures Plan submittal. The Maintenance Plan should address items such as:

- Operation plan and schedule, including a site map;
- Maintenance and cleaning activities and schedule;
- Equipment and resource requirements necessary to operate and maintain facility; and
- Responsible party for operation and maintenance.

This section identifies basic information that shall be included in a Maintenance Plan. Refer to Fact Sheets for individual control measures regarding device-specific maintenance requirements.

Site Map

- Provide a site map showing boundaries of the site, acreage, and drainage patterns/contour lines. Show each discharge location from the site and any drainage flowing onto the site. Distinguish between soft and hard surfaces on the map.
- Identify locations of existing and proposed storm drain facilities, private sanitary sewer systems, and grade breaks for purposes of pollution prevention.
- With a legend, identify locations of expected sources of pollution generation (e.g., outdoor work and storage areas, heavy traffic areas, delivery areas, trash enclosures, fueling areas, industrial clarifiers, and wash-racks). Identify any areas having contaminated soil or where toxins are stored or have been stored/disposed of in the past.

- With a legend, indicate types and locations of stormwater control measures that will be built to permanently control stormwater pollution. Distinguish between pollution prevention, treatment, sewer diversion, and containment devices.

Baseline Descriptions

- List property owners and persons responsible for operation and maintenance of the stormwater control measures on-site. Include phone numbers and addresses.
- Identify intended method of funding (i.e., homeowners association fees) for operation, inspection, routine maintenance, and upkeep of stormwater control measures.
- List all permanent stormwater control measures. Provide a brief description of stormwater control measure selected and, if appropriate, fact sheets or additional information.
- As appropriate for each stormwater control measure, provide:
 - A written description and checklist of all maintenance and waste disposal activities that will be performed. Distinguish between the maintenance appropriate for a 2-year establishment period and expected long-term maintenance. For example, maintenance requirements for vegetation in a constructed wetland may be more intensive during the first few years until the vegetation is established. The post-establishment maintenance plan shall address maintenance needs (e.g., pruning, irrigation, weeding) for a larger, more stable system. Include maintenance performance procedures for facility components that require relatively unique maintenance knowledge, such as specific plant removal/replacement, landscape features, or constructed wetland maintenance. These procedures shall provide enough detail for a person unfamiliar with maintenance to perform the activity or identify the specific skills or knowledge to perform and document the maintenance.
 - A description of site inspection procedures and documentation system, including recordkeeping and retention requirements.
 - An inspection and maintenance schedule, preferably in the form of a table or matrix, for each activity for all facility components. The schedule shall demonstrate how it will satisfy the specified level of performance, and how the maintenance/inspection activities relate to storm events and seasonal issues.
 - Identification of equipment and materials required to perform maintenance.
- As appropriate, list all housekeeping procedures for prohibiting illicit discharges or potential illicit discharges to the storm drain system. Identify housekeeping BMPs that reduce maintenance of treatment control measures.

Spill Plan

- Provide emergency notification procedures (phone and agency/persons to contact).
- As appropriate for site, provide emergency containment and cleaning procedures.
- Note downstream receiving waters, wetlands, or ESAs that may be affected by spills or chronic untreated discharges.
- As appropriate, create an emergency sampling procedure for spills. Emergency sampling can protect the property owner from erroneous liability for downstream receiving area cleanups.

Facility Changes

- Operational or facility conditions or changes that significantly affect the character or quantity of pollutants discharging into the stormwater control measures may require modifications to the Maintenance Plan and/or additional stormwater controls.

Training

- Identify appropriate persons to be properly trained and assure documentation of training.
- Training should include:
 - Good housekeeping procedures defined in the Maintenance Plan;
 - Proper maintenance of all pollution mitigation devices;
 - Identification and cleanup procedures for spills and overflows;
 - Large-scale spill or hazardous material response; and
 - Safety concerns when maintaining devices and cleaning spills.

Basic Inspection and Maintenance Activities

- Create and maintain on-site, a log for inspector names, dates, and stormwater control measure devices to be inspected and maintained. Provide a checklist for each inspection and maintenance category.
- Perform and document annual testing of any mechanical or electrical devices prior to wet weather.
- Report any significant changes in stormwater control measures to the site management. As appropriate, assure mechanical devices are working properly and/or landscaped BMP plantings are irrigated and nurtured to promote thick growth.

- Note any significant maintenance requirements due to spills or unexpected discharges.
- As appropriate, perform maintenance and replacement as scheduled and as needed in a timely manner to assure stormwater control measures are performing as designed and approved.
- Assure unauthorized low-flow discharges from the property do not bypass stormwater control measures.
- Perform an annual assessment of each pollution-generating operation and its associated stormwater control measures to determine if any part of the pollution reduction train can be improved. Annual assessment reports must be submitted to the City.

Revisions to Pollution Mitigation Measures

- If future correction or modification of past stormwater control measures or procedures is required, the owner shall obtain approval from the City prior to commencing any work. Corrective measures or modifications shall not cause discharges to bypass or otherwise impede existing stormwater control measures.

9.2. Maintenance Agreement

Verification of maintenance provisions is required for all stormwater control measures specified in the 2010 Guidance Manual, whether Site Design Control Measures (Section 4), Source Control Measures (Section 5), LID Control Measures (Section 7), or Treatment Control Measures (Section 8). Verification, at a minimum, shall include:

- The owner/developer's signed statement accepting responsibility for inspection and maintenance until the responsibility is legally transferred. A sample Owners Certification statement is provided in Appendix D; and either
- A signed statement from the public entity assuming responsibility for stormwater control measure inspection and maintenance and certifying that it meets all City design standards; or
- Written conditions in the sales or lease agreement that require the recipient to assume responsibility for inspection and maintenance activities and to conduct a maintenance inspection at least once a year; or
- Written text in project conditions, covenants, and restrictions for residential properties that assign maintenance responsibilities to the Home Owners Association for inspection and maintenance of stormwater control measures; or

A legally enforceable maintenance agreement that assigns responsibility for inspection and maintenance of post-construction control measures to the owner/operator. A Maintenance Agreement with the City must be executed by the owner/operator before occupancy of the project is approved. Example Maintenance Agreement forms are provided in Appendix D.