



7. Pollution Prevention/ Good Housekeeping

7.1 Overview

The intent of the Pollution Prevention/Good Housekeeping control measures is to ensure that existing municipal operations are performed in ways that will minimize contamination of storm water discharges. This measure for municipal operations requires the small MS4 operator to examine and subsequently alter their own actions to help ensure a reduction in the amount and type of pollution that: (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

7.2 Permit Requirement

The Permit requires an operator of a regulated small MS4 to develop, implement and enforce an operation and maintenance program to prevent and reduce pollutants from municipal activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and infrastructure maintenance. The program must, at a minimum, include the following:

- Good housekeeping and other control measures; and
- Employee and contractor training on good housekeeping practices to ensure that good housekeeping measures and BMPs are properly implemented at County facilities.

7.3 Existing County Pollution Prevention Measures

The County has been very aggressive in taking measures that reduce the amount of litter that could be entrained in storm water. On April 22, 2014 (Earth Day), the County passed an ordinance that prohibits smoking or the use of tobacco products at all County parks and recreational facilities (which includes beaches, parks, park roadways and parking areas, athletic fields, and any areas under the control and management of DPR). The ordinance added the prohibition against smoking to Maui County Code Chapter 13.04 Recreational Area Regulations, which includes a provision for fines up to \$500 for any violation. During public consultation as part of the development of this SWMP, one of the community representatives noted that they had been involved in past cleanup efforts that removed thousands of pounds of cigarette butts from Maui beaches. The new ordinance is likely to have a significant effect on the amount of cigarette butts that could be washed into receiving waters.

The County also passed a plastic bag reduction ordinance that became effective in 2011. The ordinance amended the Maui County Code by adding a new Chapter 20.18 Plastic Bag Reduction to the County's Title 20 Environmental Protection. The stated purpose of the bill included reducing unsightly litter (blight), burden to landfills, and death of marine animals through ingestion and entanglement. The revised County Code prohibits businesses from providing plastic bags at the point of sale, with some exceptions for specialty bags and for reusable bags. Violations of the law can be

reported to the County DEM, Solid Waste Management Recycling Section, and the law includes provisions for civil fines up to \$1,000 per day.

7.4 Proposed Pollution Prevention Measures

As the permittee, the County has a responsibility to conduct activities and manage its own facilities in a manner that minimizes, to the maximum extent practicable, the discharge of pollutants to the MS4 and surface waters. The County already utilizes many BMPs in their daily operations and activities, and has been aggressive in passing environmental ordinances that would have a positive effect on storm water quality.

7.4.1 Facility Inventory and Mapping

An inventory of all County facilities, including buildings, roads, parking lots, and storm drainage systems, within the MS4 will be maintained. The inventory will serve as the basis for the maintenance, inspection, enforcement and reporting of County department activities relative to good housekeeping measures. These County-owned facilities will also be included in a GIS layer the County will develop to facilitate the SWMP. A proposed implementation schedule for the inventory and mapping is included in Table 7-1 (item 7-1).

7.4.2 Street Sweeping

The County conducts regular mechanized street sweeping within the regulated MS4 to remove trash, leaves, and dirt that collects in the gutters. Sweeping is generally conducted in early morning hours, with priority given to commercial/industrial areas, and heavily used roadways with a history of debris. The street sweeping supervisor prepares monthly reports documenting the number of curb-miles swept and number of sweeping days for each sweeper.

The County will review its street sweeping records, including public complaint records related to street

sweeping, and evaluate whether adjustment to the street sweeping schedule is warranted, according to the implementation schedule proposed in Table 7-1 (item 7-2).

7.4.3 Litter Control

DPM maintains trash receptacles at County parks. The County DPW Division of Road Maintenance conducts litter removal as needed along County roads in the MS4 where abutting property owners are not responsible for roadside maintenance.

The County will review its litter control activities including scheduling and public complaint records related to litter control, and evaluate whether adjustment to litter management is warranted, according to the implementation schedule proposed in Table 7-1 (item 7-3).

7.4.4 Facility Operations and Maintenance

The two largest County maintenance base yards, the DPW base yard in Wailuku and DWS base yard in Kahului, are constructed with perimeter berms to limit storm water that exits the facilities. Storm water from the facilities flows to oil-water separators that provide treatment prior to discharge to the MS4. In addition, the County employs operational BMPs to limit the entrainment of pollutants in storm water at County facilities.

During development of the SWMP, a survey (Attachment F) was sent out to County departments to assess their utilization of typical “good housekeeping” BMPs in eight categories. The survey found excellent compliance with BMPs among all departments. The survey results will be confirmed during facility inspections that will be conducted as part of the SWMP.

A preliminary inspection was also conducted of the County’s largest municipal base yard and the fire department’s main maintenance facility. In both cases, the facilities exhibited good use of BMPs, such as secondary containment pallets for chemicals and petroleum products, and conducting maintenance activities indoors.

As part of the County's SWMP, DPW plans to foster the continued use of good housekeeping practices through further inspections and education of County employees. The County is preparing site-specific best management practices (SSBMP) plans for its base yard and similar facilities. Inspections of County facilities where maintenance activities occur will be conducted annually to confirm compliance with the SSBMP Plans, and to respond to employee questions concerning BMPs. Inspection observations will be recorded on logs that will include photos of the facility and recommended corrective actions, if any. Corrective actions and facility responses will be tracked and checked in future inspections. Facility improvements will be demonstrated/ documented over time by the results of the facility inspections.

A proposed implementation schedule for actions related to County maintenance facilities is presented in Table 7-1 (item 7-4).

7.4.5 Storm Drainage System Maintenance

To assist in prioritizing storm drain inspection and maintenance activities, the County will investigate an asset management database of storm water infrastructure components, in conjunction with the GIS mapping of its storm water system. Implementation of this program will provide the County a sound basis to define Capital Improvement Projects. A proposed implementation schedule for the development of the asset management system is presented in Table 7-1 (item 7-5).

7.4.6 Training

The County has conducted in-house training of maintenance workers on good housekeeping

practices in the past. As part of the SWMP, the County proposes to develop and document a more formal training program to educate County employees and maintenance contractors on good housekeeping practices, and to document the training program.

Future education programs and costs are currently being evaluated by the County. However, the County is committed to an education program that provides operations and maintenance employees and facility contractors with relevant information on the County's SWMP, the potential impact of their work on storm water quality, and BMPs relevant to their work.

Training would include discussion of potential storm water pollutants at the site and pathways for discharge; BMPs for housekeeping and maintenance activities, chemical application, and fueling operations; and accident and spill mitigation, including locations of spill kits.

A proposed implementation schedule for the development of the training program is presented in Table 7-1 (item 7-6).

7.4.7 Development of Standard Operating Procedures

Led by operations and field staff, the County will develop and implement standard operating procedures (SOPs) for municipal operations that may impact storm water. The focus will be on operations that have the highest potential for pollutant loading in storm water runoff from activities such as street sweeping, catch basin cleaning, herbicide/pesticide application, vehicle washing and maintenance, etc.

Table 7-1. Proposed Schedule and Goals - Pollution Prevention/Good Housekeeping

Item No.	Proposed Activity or BMP	Proposed Development and Implementation Schedule			Quantifiable Target
		2014/15	2016	2017	
7-1	County facility inventory and mapping	Gather existing information on County facilities in the UA.	Conduct field survey for GIS input of priority (commercial and industrial) areas within the MS4.	Conduct field survey for GIS input of remaining areas within the MS4.	<ul style="list-style-type: none"> Develop map of County-owned facilities in the UA within 3 years.
7-2	Mechanical street sweeping	Review current program and public complaint records regarding street sweeping.	Evaluate whether more frequent street sweeping is warranted in some areas.	Adjust street sweeping schedule as needed based on evaluation.	<ul style="list-style-type: none"> Adjust street sweeping schedule to more efficiently target County resources while maximizing pollutants collected within 3 years.
7-3	Litter management	Review current schedule and public complaint records regarding litter control.	Evaluate whether more frequent litter or trash collection is warranted in some areas.	Adjust litter collection schedule as needed based on evaluation.	<ul style="list-style-type: none"> Conduct litter control at a rate that best utilizes County resources while preventing entrainment of litter in storm water within 3 years.
7-4	Use of BMPs at County facilities	Develop plan for annual “BMP audit” inspection of County facilities and operations that may impact storm water.	Conduct annual inspections of County facilities.	Conduct annual inspections of County facilities.	<ul style="list-style-type: none"> By Year 2, conduct an annual “BMP audit” inspection of County facilities and operations in the UA that may impact storm water.
7-5	Storm drainage system maintenance	Investigate asset management system to aid in scheduling and managing storm drainage inspections and maintenance.	Evaluate systems and select a program that will interface with the GIS data obtained for the drainage system.	Begin implementation of an asset management system.	<ul style="list-style-type: none"> By Year 3, begin implementation of an asset management system for storm drainage infrastructure in the UA.
7-6	Conduct an education campaign for County O&M personnel.	Develop a training program for County personnel whose activities may impact storm water.	Implement annual training program.	Conduct annual training program.	<ul style="list-style-type: none"> By program years 2 and 3, conduct annual training programs for at least 90% of active O&M personnel

Item No.	Proposed Activity or BMP	Proposed Development and Implementation Schedule			Quantifiable Target
		2014/15	2016	2017	
7-7	Develop SOPs for municipal operations.	The County will identify municipal operations (e.g., street sweeping, catch basin cleaning, and vehicle washing/maintenance) that could impact storm water and begin preparing SOPs.	Develop SOPs for activities of concern.	During annual good housekeeping training, receive feedback on SOPs from field staff and adjust as needed.	<ul style="list-style-type: none"> Identify municipal operations that could impact storm water and, by 2016, develop SOPs to protect storm water.