

Good Housekeeping Operation & Maintenance Program

(O&M Program)

The Municipal Pollution Prevention/Good Housekeeping Plan (MS4 PPGHP)

Municipality






Date

CONTENTS

Section 1.....	Background & Introduction
1.1	Objectives
1.2	Applicable Regulations
1.3	O&M Program Modifications and Reviews
1.4	Effective Permit
1.5	O&M Program Preparation
Section 2.....	Purpose & Responsibilities
2.1	O&M Program Overview
2.1.1	Documentation
2.1.2	Inspections
2.1.3	Monitoring and Analytical Testing
2.1.4	Training
2.2	BMP Selection
Section 3.....	Description of Municipality
3.1	Geographic Boundaries
3.1.1	Geographic Features
3.2	Municipal Inventory
3.3	Stormwater Collection and Conveyance System
Section 4.....	Operational Plan
4.1	Best Management Practices (BMPs)
4.1.1	Waste Disposal Plan
4.1.2	Spill Response and Control Plan
4.2	Program Goals
4.3	Training and Education
4.4	Inspections
4.5	BMP Implementation and Maintenance Activities
4.6	Events
4.7	Measuring Effectiveness
4.7.1	General Monitoring
4.7.2	Field Monitoring
4.7.3	Analytical Monitoring
4.8	Other Operational Plans
4.9	Annual Reports
4.10	Other Considerations

ATTACHMENTS

Attachment A.....	Qualified Personnel Reference(s)
Attachment B.....	Municipal Inventory List
Attachment C.....	Municipal Map(s)
Attachment D.....	BMP Selection Matrix
Attachment E.....	Implemented BMPs

Attachment F.....BMP Implementation & Maintenance Schedule
Attachment G..... Annual Training and Education Plan(s)
Attachment H..... Training and Education Log
Attachment I..... Training Records
Attachment J..... Inspection, Event, and Activity Log
Attachment K..... Inspection Records
Attachment L..... Event Records
Attachment M..... Activity Records
Attachment N..... Waste Disposal Plan
Attachment O..... Spill Response and Control Plan
Attachment P.....Monitoring Log
Attachment Q.....Monitoring Reports
Attachment R..... Analytical Monitoring Map(s)
Attachment S.....Pollutant Guidance Table
Attachment T..... O&M Program Modifications
Attachment U..... Annual Reports
Attachment V.....Copy of Permit
Attachment W..... List of Facilities with Separate NPDES Permits
Attachment X..... 
Attachment Y..... 
Attachment Z..... 
Attachment AA..... 
Attachment BB..... 

Section 1 Background & Introduction

The Good Housekeeping Operation and Maintenance Program (O&M Program) was developed to outline operational management and maintenance practices, policies, procedures, and protocols (or Best Management Practices (“BMPs”)) for reducing and/or preventing pollutants associated with municipal facilities and activities from entering receiving waters as outlined and/or required by the National Pollutant Discharge Elimination System (NPDES) and an issued NPDES Small Municipal Separate Storm Sewer System (MS4) Permit (including PAG-13).

Compliance is a broad word with respect to an issued MS4 Permit and corresponding applicable laws and regulations such as Title 40 (“40 CFR”) and 25 Pa. Code, which provide the basis of the permit. There are two primary categories for consideration for an MS4 Permit—documentation and program effectiveness. A program is built to effectively prevent or reduce pollutants from entering receiving waters via stormwater runoff or non-stormwater discharges to meet the requirements of an MS4 Permit. Documentation provides the specifics of the program; along with evidence the permitted entity is addressing not only the requirements of the MS4 Permit, but also the applicable laws and regulations.

The O&M Program specifically addresses the regulatory requirements outlined for municipal good housekeeping practices for operations and maintenance of facilities and activities, and is more commonly known as Minimum Control Measure Number Six (“MCM #6”) in an issued MS4 Permit. An important aspect of the O&M Program is the training component as required by 40 CFR Part 122.34(b) (6) (i).

The O&M Program addresses, but is not limited to:

- municipal operations.
- the stormwater collection and conveyance system.
- facilities, activities, and land uses that have the potential to generate stormwater runoff.
- facilities, activities, and land uses that may contribute pollutants via stormwater runoff or non-stormwater discharges to receiving waters.
- pollution prevention and good housekeeping control measures for reducing or eliminating the discharge of pollutants from municipal facilities and activities through Best Management Practices (BMPs) including, but not limited to:
 - practices and procedures.
 - maintenance and inspection activities.
 - assessing goals and effectiveness.
 - training and education.

Section 4 of the O&M Program is the Operational Plan of the program. This section provides the specifics of activities, policies, procedures, and so on. The O&M Program as described in the contents section effectively becomes the MS4 Pollution Prevention/Good Housekeeping Plan (“MS4 PPGHP”) for MCM #6 of an issued MS4 Permit.

1.1 OBJECTIVES

The O&M Program has four main objectives:

1. Identify and document all municipal facilities and activities that may contribute pollutants to receiving waters via the regulated MS4 through stormwater runoff or a non-stormwater discharge.

2. Implement, maintain, and document all practices, controls, procedures, and so on for a group of selected BMPs aimed at reducing or preventing pollutants that may result from municipal facilities or activities.
3. Implement, maintain, and document an employee and contractor training program to improve the knowledge of employees and contractors for reducing or preventing pollutants that may result from municipal facilities or activities.
4. Identify and document all other activities, policies, and so on with a focus on pollution prevention and good housekeeping for municipal operations.

1.2 APPLICABLE REGULATIONS

Congress established the Federal Water Pollution Control Act in 1948. This law provides the foundation of current water quality and water pollution control regulations. In 1972, Congress passed an amendment to the original act known as the Clean Water Act (“CWA”). Section 301 of the CWA prohibits discharges to waters of the U.S. except with a permit. Also, the CWA authorized the NPDES in Section 402. The U.S. Environmental Protection Agency (“EPA”) developed the NPDES through promulgation of regulations found in 40 CFR. The Commonwealth of Pennsylvania issues NPDES permits through an approved program following requirements that meet or exceed 40 CFR §123.

In 1987, Congress passed another amendment to the original Federal Water Pollution Control Act. The amendment is more commonly known as the Water Quality Act. This act specifically labeled stormwater as a “problem.”

25 Pa. Code Chapter 92a incorporates 40 CFR into Pennsylvania code. Chapter 92a is more commonly known as the NPDES Permitting, Monitoring, and Compliance regulations. Additional chapters in 25 Pa. Code that affect municipal operations governed by an MS4 Permit include Chapter 93 (Water Quality Standards and Criteria), Chapter 96 (Water Quality Protection Requirements), and Chapter 105 (Waterway Management). Chapter 96 also outlines requirements associated with an issued Total Maximum Daily Load (“TMDL”).

1.3 O&M PROGRAM MODIFICATIONS AND REVIEWS

From time-to-time, the language in the O&M Program or a reference for the program may be executed. Such modifications are noted and found in Attachment T of the O&M Program. Changes to the issued NPDES permit number will be noted and found in Attachment T as well.

The program, along with its components, will be reviewed annually by [REDACTED] of each year. Components to be reviewed include, but are not limited to, the BMP Implementation and Maintenance Schedule and selected BMPs. Modifications or revisions to the O&M Program may occur during the annual reviews. Primary purposes of the review include:

- Ensuring selected BMPs and program information match actual municipal facilities and activities.
- Qualitatively measure effectiveness and goals of the overall program.
- Qualitatively measure effectiveness and goals of individual components of the program.
- Outline new goals for the program or components of the program.

The annual review will be noted with an Activity Record. Annual Reports will further reflect modifications to the O&M Program. Copies of the Annual Reports can be found in Attachment U.

1.4 EFFECTIVE PERMIT

The O&M Program is developed to address the requirements of MCM #6 in an issued NPDES MS4 Permit for the municipality. A copy of the permit can be found in Attachment V.

Permit # _____ was issued to _____.

The effective date of the permit is _____, and expires
_____.

1.5 O&M PROGRAM PREPARATION

The O&M Program was prepared by:

- Inspection Records (Attachment K), Event Records (Attachment L), Activity Records (Attachment M), and the corresponding log (Attachment J) provides a centralized location for documentation pertaining to inspections and activities to reduce the potential for pollutants to reach the regulated small MS4.
- The O&M Program calls for the insertion of the Waste Disposal Plan and Spill Response and Control Plan as attachments.
- Analytical Monitoring is contemplated in the O&M Program to measure effectiveness of the program.
- MEASURABLE GOAL: Development of the O&M Program and items listed above by March 2013 will help achieve this goal for LIMC municipalities.
- PAG-13/MCM #6 BMP #3: Develop and implement an employee training program
 - The Annual Training and Education Plan is located in Attachment G.
 - Training Records (Attachment I) and corresponding log (Attachment H) provides a centralize location of documented training activities.
 - MEASURABLE GOAL(s): Implementation of the above items and as outlined in the O&M Program by March 2013 will achieve the goals for LIMC municipalities.

2.1.1 DOCUMENTATION

All documentation relative to good housekeeping and pollution prevention referenced in the O&M Program or as applicable will be centralized into one location. Persons responsible for the implementation and maintenance of the O&M Program and corresponding activities and procedures of the BMPs outlined in the program are as follows:



Each person listed is qualified to manage and/or administer the activities and procedures outlined in the O&M Program. Documents establishing a qualified status can be found in Attachment A of the O&M Program.

Documentation guidance for selected and implemented BMPs can be found on the BMP Fact Sheets in Attachment E or clarified on the BMP Selection Matrix in Attachment D.

The responsible persons assume the following duties:

- Ensuring compliance with MCM #6 of the MS4 Permit and applicable laws and regulations as it pertains to pollution prevention and good housekeeping for municipal operations.
- Implementing elements of the MS4 PPGHP
- Inspections
- Documentation
- Correlating activities and procedures with other MS4 Permit requirements
- Administer the O&M Program of the MS4 PPGHP

2.1.2 INSPECTIONS

Inspections will be conducted of municipal facilities and activities. Inspection protocols are further described in Section 4 of the O&M Program, the BMP Selection Matrix found in Attachment D, and the individual implemented BMPs found in Attachment E. Descriptions will include the frequency of regular inspections for individual BMPs implemented. Certain rain events will warrant inspections of certain BMPs outside of the normal regular inspection frequency. A defined rain event that will warrant an inspection of particular BMPs is as follows:

DEFINED RAIN EVENT: Greater than _____ in. of rain in any given period of time.

A rain gauge can be found _____. The measured rainfall collected in the gauge will determine if the threshold for a defined rain event has been met.

For any continuous rain event greater than 24 hours in duration, all BMPs identified for rain event inspections will be inspected. Rain event inspections will follow the defined rain event. From time-to-time, municipal personnel may inspect applicable BMPs prior to a significant and forecasted rain event.

The person(s) responsible for inspections of municipal activities and facilities, along with corresponding BMPs outlined in this O&M Program are as follows:

2.1.3 MONITORING AND ANALYTICAL TESTING

General monitoring is a continuous activity, and further described in Section 4 of the O&M Program. Analytical monitoring will be conducted periodically or as warranted. Such monitoring may include field testing by qualified municipal employees or a qualified laboratory. Monitoring may be conducted to help determine the effectiveness of the program. Actual analytical monitoring protocols are further described in Section 4 of the O&M Program.

From time to time, analytical testing will be required of samples will be required. The following laboratories or similar type entity will conduct testing of samples:

LABORATORY 1

Laboratory

Address

City, State, Zip

Contact

Contact Number

LABORATORY 2 (if applicable)

Laboratory

Address

City, State, Zip

Contact

Contact Number

Section 3 Description of Municipality

Understanding the boundaries, features, and facilities of a municipality aids with establishing a comprehensive and effective program. This section describes not only the geographic features of the municipality for consideration, but also the facilities and activities of the municipality.

3.1 GEOGRAPHIC BOUNDARIES

Geographic boundaries of [REDACTED] include the following:

EAST: [REDACTED]

NORTH: [REDACTED]

WEST: [REDACTED]

SOUTH: [REDACTED]

A map of the municipality can be found in Attachment C revealing these geographic boundaries.

3.1.1 GEOGRAPHIC FEATURES

Other geographic features of note within the municipality include:

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]

These features affect municipal facilities and activities. BMPs implemented and maintained respect the aspects of these features. These features are also shown on the map of the municipality found in Attachment C.

3.2 MUNICIPAL INVENTORY

The municipality owns or operates facilities and conducts certain activities. These facilities and activities, along with certain land uses, either have the potential to generate stormwater runoff or contribute pollutants to stormwater runoff. Certain facilities and activities may contribute pollutants directly through contact with stormwater runoff or non-stormwater discharges.

A complete list of all municipal facilities, activities, and land uses can be found on the Municipal Inventory List found in Attachment B. The list will be reviewed annually for accuracy or needed modifications by a

responsible person listed in Section 2 by [redacted] of each year. An Activity Record will be completed and logged for this action to document the annual review. Activity Records can be found in Attachment M with the corresponding log in Attachment J.

A primary facility of the municipality is the municipal yard. A number of facilities and activities are located or conducted within the boundaries of the yard. Attachment C contains a layout of the municipal yard identifying the facilities and activities within the boundaries of the yard. A map showing the locations of all municipal facilities, activities, and relevant land uses is also found in Attachment C.

Certain municipal facilities and activities require separate NPDES Permits. The Municipal Inventory List may indicate as such. A list of municipally owned or operated facilities with separate NPDES Permits is found in Attachment W.

3.3 STORMWATER COLLECTION AND CONVEYANCE SYSTEM

Certain structural and natural components within the municipality collect and convey stormwater to receiving waters. Such components include pipes, curbs, ditches, basins, and inlets that are municipally owned. A goal of the municipality is to prevent or reduce polluted stormwater in the entire collection and conveyance system. However, the issued MS4 Permit provides focus to an established regulated area. A map revealing the regulated area and corresponding components of the collection and conveyance system within the regulated area is found in Attachment C.

The stormwater collection and conveyance system in the regulated area drains to the following waters:

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

The map in Attachment C also indicates the locations of municipal facilities and activities within the regulated area.

BMPs addressing components of the collection and conveyance system are further described in Section 4, along with the practices aimed at reducing or preventing polluted discharges from municipal facilities and activities from entering the regulated MS4 and/or collection and conveyance system.

The objectives, protocols/practices (including operations and maintenance), inspection procedures, and documentation procedures of selected BMPs can be found within the individual BMP Fact Sheets located in Attachment E or noted in the BMP Selection Matrix. The BMP Selection Matrix also provides relevant goals for individual BMPs selected, along with a measurement of effectiveness if applicable. Goals, or milestones, of selected BMPs (including implementation (if applicable) and maintenance practices) will be outlined in a schedule format. The BMP Implementation and Maintenance Schedule can be found in Attachment F.

The BMP Selection Matrix and corresponding fact sheets of selected BMPs will be reviewed annually by [redacted] of each year. Effectiveness, established milestones/goals, and practices will be reviewed. An Activity Record will be completed and logged for this action. Along with this action, the BMP Implementation and Maintenance Schedule will be reviewed and updated to note any changes in the annual review.

Primary goals for BMPs identified in the BMP Selection Matrix are as follows:

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

4.1.1 WASTE DISPOSAL PLAN

Along with the selection of BMP GH-7, Waste Handling and Disposal, the Waste Disposal Plan addressing collection and disposal of waste removed from the regulated MS4 and as a result of municipal activities is found in Attachment N. The Plan addresses disposal of wastes such as dredge spoil, accumulated sediments, trash, hazardous wastes (including household), used motor oil, and other debris.

Primary considerations in the Waste Disposal Plan include, but are not limited to:

[redacted]
[redacted]
[redacted]

4.1.2 SPILL RESPONSE AND CONTROL PLAN

Along with the selection of BMP GH-10, Spill Prevention and Control, the Spill Response and Control Plan addressing spills that may pollute stormwater runoff or contribute pollutants directly to receiving waters via the regulated MS4 is found in Attachment O. The plan outlines such items as spill control materials and responsibilities.

Primary considerations outlined in the Spill Response and Control Plan includes, but is not limited to:

[Redacted]

[Redacted]

[Redacted]

4.2 PROGRAM GOALS

Goals have been identified and established for the facilitation of the O&M Program. Milestones associated with the goals can be found on the BMP Implementation and Maintenance Schedule as well. Goals may be modified, changed, or added during annual reviews. Such modifications will be noted and found in Attachment T. Initial goals associated with the program or components of the program are as follows:

1. [Redacted]
2. [Redacted]
3. [Redacted]
4. [Redacted]
5. [Redacted]

4.3 TRAINING AND EDUCATION

An annual training plan will be developed by [Redacted] of each year. The topics of focus in the training plan are based on selected BMPs or any items relative to stormwater and water quality deemed necessary. The Annual Training and Education Plan can be found in Attachment G. Training is provided to municipal employees and contractors by the following methods, but not limited to:

- Formal or informal
- “Tail-gate” training
- On-site
- Classroom or similar

Training is conducted by appropriate and qualified persons, including those persons listed as responsible persons in Section 2.

Training Records will be completed and logged documenting training completed, and will include information such as the date of training, location of training, instructor(s)/presenter(s), and topics reviewed. Training Records can be found in Attachment I. A log of the records providing a summary overview can be found in Attachment H. Records will be completed for training activities outlined in the Annual Training Plan and for non-planned activities.

ensuring proper execution of practices and protocols outlined in the O&M Program (and specifically the selected BMPs) through adequate documentation and review of documentation reflecting implementation and maintenance of BMPs.

Other measurements of effectiveness for select BMPs include the following:

BMP(s)	Measurement(s)
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

Additional clarifications regarding the above listed measurements include: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

4.7.1 GENERAL MONITORING

General monitoring entails frequent observations of municipal activities and facilities outside the normal inspection schedule. Municipal employees and contractors will observe potential polluting conditions (e.g. leaks, discharges, and so on) during normal operations.

4.7.2 FIELD MONITORING

Field monitoring entails documented observations of selected municipal facilities and activities. Field monitoring may include sample acquisition by qualified municipal employees or contractors. Most samples acquired will be tested with a field test kit. The kit used by the municipality is:

[REDACTED].

If applicable, the kit will be used to test the following potential pollutants:

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

The Pollutant Guidance Table found in Attachment S provides guidelines for observations and testing of samples. The table will provide analytical guidelines as applicable.

A Monitoring Report will be completed for field monitoring. Reports can be found in Attachment Q. All reports completed will be entered on a summary log found in Attachment P. Locations of field monitoring conducted are further identified on the Analytical Monitoring Map found in Attachment R.

The persons qualified to obtain samples via field monitoring is as follows:

There is no overarching frequency identified for field monitoring. Field monitoring will be conducted as needed or as identified as a measurement of effectiveness for selected BMPs.

4.7.3 ANALYTICAL MONITORING

From time to time, analytical monitoring and testing will be conducted to measure the quality of waters within the municipality and within the regulated area to ensure selected practices and protocols for good housekeeping are effective. Analytical monitoring may also include sample acquisition at other locations in the regulated area of the MS4, such as the municipal yard or at an inlet. Monitoring Reports (Attachment Q) and a corresponding log (Attachment P) outline analytical monitoring activities. An Analytical Monitoring Map is located in Attachment R that outlines locations of monitoring activities and sample acquisition.

Analytical monitoring will be conducted by a laboratory listed in Section 2. Sample acquisition may be completed by qualified municipal personnel, contractors, or the laboratory. The monitoring report will note the person acquiring the sample, along with proper chain of custody forms and other relevant information to ensure quality control.

There is no overarching frequency identified for analytical monitoring. Analytical monitoring will be conducted as needed, and for potential pollutants as deemed appropriate to test for, or as identified as a measurement of effectiveness for selected BMPs.

4.8 OTHER OPERATIONAL PLANS

Facilities requiring separate NPDES Permits, and found in Attachment W, have separate operational plans. The operational plans of these facilities are correlated with this O&M Program. The plans are also attached to this program for reference and can be found in the following locations:

Attachment _____: _____
Attachment _____: _____
Attachment _____: _____
Attachment _____: _____

4.9 ANNUAL REPORTS

All activities and items associated with the O&M Program including modifications, training endeavors, goals, etc. will be summarized in Annual Reports. Copies of the Annual Reports can be found in Attachment U. The person(s) responsible for Annual Reports are as follows:

4.10 OTHER CONSIDERATIONS

Other considerations for the proper administration of the O&M Program include:

_____.