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**SMALL MUNICIPAL STORM WATER MANAGEMENT PLAN (SWMP) FOR  
SEPARATE STORM SEWER SYSTEMS (MS4's), NATIONAL POLLUTANT  
DISCHARGE ELIMINATION SYSTEM (NPDES) PHASE II**

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## Table of Content

1.0	Introduction .....	1
1.1	Regulatory Background .....	1
1.2	Permit Requirements.....	2
1.3	Notice of Intent .....	2
1.4	Storm Water Management Plan.....	2
2.0	Definitions .....	15
3.0	Coverage Areas .....	18
3.1	Storm Water Sewer Area Map.....	18
4.0	Discharges to Water Quality Impaired Waters.....	19
5.0	Storm Water Management Program.....	19
5.1	Minimum Control Measures.....	20
5.1.1	Minimum Control Measure 1 – Public Education and Outreach.....	20
5.1.1.1	Target Audience .....	20
5.1.1.2	Best Management Practice - Storm Water-Related Public Service Announcements.....	20
5.1.1.2.1	Mensurable Goal.....	20
5.1.1.3	<i>Best Management Practice – Educational Involvement/ Partnerships/ Outreach with the Schools.....</i>	20
5.1.1.3.1	Mensurable Goal.....	21
5.1.1.5	Best Management Practice - Educational Outreach to Community Homeowners on Lawn Care .....	21
5.1.1.5.1	Mensurable Goal.....	21
5.1.1.6	Best Management Practice - Development and Distribution of Storm Water- Related Materials.....	21
5.1.1.6.1	Mensurable Goal.....	22
5.1.1.7	Best Management Practice - Storm Water Web Page.....	22
5.1.1.7.1	Mensurable Goal.....	22
5.1.1.8	Best Management Practice - Development of an Expanded Regional Interactive Storm Water Initiative by leading an annual meeting on SWMP with the participation of leaders of the region.....	22
5.1.1.8.1	Mensurable Goal.....	22
5.1.1.9	Best Management Practice -Storm Water Pamphlets, Booklets, and Flyers..	22
5.1.1.9.1	Mensurable Goal.....	22
5.1.1.11	BMP Implementation Schedule and MCM 1 Performance Measures Implementation Planned Performance Measures .....	23
5.1.2	Minimum Control Measure 2 – Public Involvement and Participation .....	23
5.1.2.1	Target Audience .....	23
5.1.2.2	Best Management Practices - Storm Drain Stenciling Program .....	23
5.1.2.2.1	Mensurable Goals .....	24
5.1.2.2.2	Mensurable Goals .....	24
5.1.2.3	Best Management Practices IV - Adopt-A-Park.....	24
5.1.2.3.1	Mensurable Goal.....	24
5.1.2.4	Best Management Practice - Support of Local Organization(s) .....	24
5.1.2.4.1	Mensurable Goal.....	24
5.1.2.5	Best Management Practices - Attitude Survey .....	25
5.1.2.5.1	Mensurable Goal.....	25
5.1.2.6	Best Management Practices - Community Hotline.....	25

5.1.2.9.1	Measurable Goals .....	25
5.1.2.7	BMP Implementation Schedule and MCM 2 Performance Measures Implementation Planned Performance Measures .....	25
5.1.3	Minimum Control Measure 3 – Illicit Discharge Detection and Elimination ...	26
5.1.3.1	Target Audience .....	26
5.1.3.2	Best Management Practices - Storm Sewer System Map .....	26
5.1.3.2.1	Measurable Goals .....	26
5.1.3.3	Management Practices - Implement Regulations to Enforce Non-storm Water Discharges .....	26
5.1.3.3.1	Measurable Goals .....	26
5.1.3.4	Best Management Practices - Educational Outreach .....	27
5.1.3.4.1	Measurable Goals .....	27
5.1.3.5	Best Management Practice - Program to Detect, Identify, and Eliminate Illicit Discharges .....	27
5.1.3.5.1	Measurable Goals .....	28
5.1.3.6	Best Management Practice - Program to Detect, Identify, and Eliminate Illegal Solid Waste Dumping .....	28
5.3.6.1	Measurable Goals .....	28
5.1.3.7	Best Management Practices - Program to Detect, Identify, and Eliminate ...	28
5.1.3.7.1	Measurable Goals .....	28
5.1.3.8	Best Management Practices - Program to Manage Recreational Sewage Discharges .....	29
5.1.3.8.1	Measurable Goals .....	29
5.1.3.9	Best Management Practices - Program to Detect and Eliminate Sanitary Sewer Overflows.....	29
5.1.3.9.1	Measurable Goals .....	29
5.1.3.10	Program to Detect and Eliminate Failing Septic Systems .....	29
5.1.3.10.1	Measurable Goals .....	29
5.1.3.11	BMP Implementation Schedule and MCM 3 Performance Measures Implementation Planned Performance Measures .....	30
5.1.4	Minimum Control Measure 4 – Construction Site Storm Water Runoff Control .....	30
5.1.4.1	Target Audience .....	30
5.1.4.2	Best Management Practices I - Ordinances or Other Regulatory Mechanism	30
5.1.4.2.1	Measurable Goals .....	30
5.1.4.3	Best Management Practices - General Construction Site Waste Controls ....	31
5.1.4.3.1	Measurable Goals .....	31
5.1.4.4	Best Management Practices - Information Submitted by the Public .....	31
5.1.4.4.1	Measurable Goals .....	31
5.1.4.5	Best Management Practices - Construction Site Inspection and Enforcement .....	31
5.1.4.5.1	Measurable Goals .....	31
5.1.4.6	BMP Implementation Schedule and MCM 4 Performance Measures Implementation Planned Performance Measures .....	31
5.1.5	Minimum Control Measure 5 – Post-Construction Storm Water Management in Development and Redevelopment.....	32
5.1.5.1	Target Audience .....	32
5.1.5.2	Best Management Practices I – Structural .....	32
5.1.5.2.1	<i>Measurable Goals</i> .....	32

5.1.5.3	Porous Pavement Program.....	32
5.1.5.3.1	Measurable Goal .....	32
5.1.5.4.4	<i>Measurable Goals</i> .....	33
5.1.5.5	Vegetative Practices - Grassed Swale Program.....	33
5.1.5.5.1	Measurable Goals .....	33
5.1.5.6	Runoff Pretreatment Practices.....	33
5.1.5.6.1	Measurable Goals .....	33
5.1.5.7	Best Management Practice II – Nonstructural .....	33
5.1.5.7.1	Measurable Goals .....	34
5.1.5.8	BMP Inspection and Maintenance Program .....	34
5.1.5.8.1	Measurable Goal .....	34
5.1.5.9	BMP Implementation Schedule and MCM 5 Performance Measures .....	34
5.1.6	Minimum Control Measure 6 – Pollution Prevention (Good Housekeeping for Municipal Operations) .....	35
5.1.6.1	Target Audience .....	35
5.1.6.2	Best management Practices I – Source Controls .....	35
5.1.6.2.1	Best management Practices I – Source Controls .....	36
5.1.6.3	Best management Practices II – Materials management .....	37
5.1.6.3.1	Measurable Goals .....	37
5.1.6.4	BMP Implementation Schedule and MCM 6 Performance Measures .....	38
6.0	Implementation Responsibilities .....	39
7.0	Storm Water Reviews and Updates.....	39
7.1	Monitoring and Reporting .....	39
8.0	Storm Water Management Plan Certifications .....	40
8.1	Storm Water Management Plan Certification.....	40
8.2	Storm Water Management Program Director Certification .....	41
8.3	Storm Water Management Plan BMP Coordinator Certification.....	42

## APPENDICES

APPENDIX A – FIGURES

APPENDIX B – PR04000-NPDES GENERAL PERMIT FOR DISCHARGE FROM MS'4

APPENDIX C –NOTICE OF INTENT

APPENDIX D – CHANGES TO SWMP

APPENDIX E – CERTIFICATIONS

## **1.0 INTRODUCTION**

The Storm Water Phase II Final Rule (December 8, 1999) requires operators of regulated small municipal separate storm sewer systems (MS4s) to obtain a National Pollutant Discharge Elimination System (NPDES) permit. This Rule also requires the development of a Storm Water Management Plan to satisfy applicable CWA water quality requirements and technology standards.

This document presents the Storm Water Management Plan for the urbanized areas of the Municipality of Bayamón. It is designed to implement programs and practices to reduce the discharges of pollutants from the MS4 to the maximum extent practicable to control polluted storm water runoff from the jurisdiction serviced by the MS4

### **1.1 REGULATORY BACKGROUND**

In 1972, Congress amended the Clean Water Act (CWA) to prohibit the discharge of any pollutant to waters of the United States from point sources unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Initial efforts under the NPDES program focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage.

In 1987, Congress amended the CWA to require implementation, in two phases, of a comprehensive national program for addressing storm water discharges. The first phase of the program, commonly referred to as "Phase I," was promulgated on November 16, 1990 (55 FR 47990). Phase I requires NPDES permits for storm water discharge from a large number of priority sources including medium and large municipal separate storm sewer systems ("MS4s") generally serving populations of 100,000 or more and several categories of industrial activity, including construction activity that disturbs five or more acres of land.

The Phase I permits for municipal separate storm sewer systems mostly covers larger cities, and require them to develop a storm water management program, track and oversee industrial facilities regulated under the NPDES storm water program, conduct some monitoring, and submit periodic reports.

In 1999 EPA published the Storm Water Phase II Rule. The second phase of the storm water program requires permits for storm water discharges from certain small municipal separate storm sewer systems and construction activity generally disturbing between 1 and 5 acres. The Phase II requires operators of regulated small MS4s to obtain a National Pollutant Discharge Elimination System (NPDES) permit and develop a Storm Water Management Program designed to prevent harmful pollutants from being washed by storm water runoff into the MS4 and then discharged from the MS4 into local water bodies. Since the U.S. Environmental Protection Agency (USEPA) has not delegated the NPDES permitting program to the Puerto Rico Environmental Quality Board (PREQB) the USEPA Region 2 issued a General NPDES Permit for Discharge from MS4 on November 6, 2006.

As outlined in the Phase II regulations the Autonomous Municipality of Bayamón is required to submit an application for permit coverage as well as a Storm Water Management Plan. The urbanized areas of the Autonomous Municipality of Bayamón are required to apply for NPDES municipal storm water discharge permits.

## **1.2 PERMIT REQUIREMENTS**

On November 6, 2006 EPA Region 2 issued a general NPDES permit for Small Municipal Separate Storm for Puerto Rico. (see Appendix B).

## **1.3 NOTICE OF INTENT**

The Municipality of Bayamón submitted a Notice of Intent (NOI) on February 2007 requesting coverage under the General NPDES Permit for Discharge from MS'4 (PR04000) in accordance with Storm Water Phase II Rule (see Appendix C).

## **1.4 STORM WATER MANAGEMENT PLAN**

The Autonomous Municipality of Bayamón has developed this Storm Water Management Plan (SWMP) to meet the regulatory requirements of the National Pollutant Discharge Elimination System (NPDES) Phase II Rule and the Puerto Rico General NPDES Permit for Small Municipal Separate Storm (PRR000084). This plan was developed to assist the municipality in maintaining and improving the municipality drainage facilities which include pipelines, structures, basins, ditches, swales, ponds, underdrains and drainage wells, to ensure that they perform to design capacity and that all receiving bodies meet state and federal standards for water quality. This is an important tool for use in the day-to-day operations and as a public reference document. Along with regulatory issues, this plan addresses protection of property from flooding and erosion identifies health and safety issues related to water resources, and make recommendations for the preservation of environmental and aesthetic benefits to the community.

Through the use of field observations, results of past and future studies, hydrologic/hydraulic computer modeling, and input from Municipality staff and the proposed Citizens Advisory Committee, this plan identifies the existing problems and potential future problems within the municipality. The major plan elements include the following:

- Development of proposed storm water ordinance that, among other things, establishes minimum requirements for new development and redevelopment, prohibits illicit discharges into surface waters, and requires maintenance of privately owned storm water facilities.
- Development of public education opportunities to inform the community of water quality issues, and, specifically, the new ordinance requirements.

- Develop a Storm Water Assistance Program, to assist businesses and persons in their efforts to comply with NPDES storm water regulations and will educate citizens about storm water runoff and associated concerns.
- Hydrologic and hydraulic computer modeling analysis of the major drainage basins in the Municipality to simulate existing flows, project future flows, and evaluate system requirements.
- Analysis of localized flooding and water quality problems and solutions, and development of a prioritized list of recommended drainage system improvements.
- Development of a Capital Improvements Program.
- Development of a Maintenance and Operations Program.
- Development of a Compliance Management Program to among other things, monitor illicit discharges into surface waters, storm water discharges associated with industrial activity and construction sites.

This SWMP is focus on a system inventory and analysis of drainage and water quality issues; followed by a 5-year capital improvement program, a facilities maintenance program and a comprehensive storm and surface water code and policy. As envisioned, the SWMP address the drainage network base map, environmental and water quality issues, capital improvement program, storm water facilities maintenance program and a comprehensive Storm Water Management Code and Policy.

Under the direction of the Municipality Planning Department, a work plan will be developed at the beginning of each year based on priorities. Semiannual meetings will be held to update all partnership members and Citizens Advisory Committee on the status of the planned activities. A written annual report will be prepared and distributed at the end of each year. The anticipated activities are divided into six major tasks:

(1) **Technology Assessment, Development, and Demonstration**

Water quality issues are becoming more important in the Municipality as a result of population growth, increased irrigation and new industry. Choosing the right technological solutions to deal with water quality issues is key to the future of the region. The goal of this task is to ensure that the Municipality benefits from the best water management technologies available.

The objective of this task is to identify and/or develop solutions to water quality issues facing the Municipality using innovative or alternate technologies and practices.

(2) Water Resource Assessment and Analyses

Numerous studies have been performed and will be conducted on a variety of local and regional water issues, including watershed management, flooding, drought, water quality concerns, and environmental problems. Water quality and quantity data have been collected through the monitoring programs of the U.S. Army Corps of Engineers (USACE), the U.S. Geological Survey (USGS), the U.S. Department of Agriculture (USDA), and other federal and state agencies. This task will provide the Municipality and its citizens with easy access to water-related information so that decisions can be based on the best data available. The objective is to provide the Municipality and its citizens with access to data and information so that scientifically valid management decisions can be made on important issues that impact the water resources of the basin.

(3) Anthropogenic Impacts on Water Resources

New and more stringent federal regulations regarding water quality are making it more difficult for the municipality to meet water quality standards and for industry and municipalities to meet wastewater discharge limits. The Municipality, which continues to grow, is concerned about meeting current and future water demands. For economic development to continue, the best possible information is required on the water resources available and potential future water needs so that scientifically valid management decisions can be made on important issues that impact the water resources of the basin. The objective is to assess the impacts from human activities on water resources in the watershed basins within the Municipality.

(4) Water Resource Monitoring

Monitoring programs are the key to protecting the health and sustainable use of water resources. In recent years, more stringent environmental regulations have increased water quality monitoring by public and private entities. Federal and state agencies are actively developing new monitoring initiatives, as well as maintaining current programs. Although numerous monitoring efforts are under way, coordination of these efforts has been slow to develop. Coordinating monitoring efforts and results presents unique challenges because the methods and goals of the programs can vary significantly. The objectives are to track monitoring efforts of stakeholders and regulatory agencies in the Municipality, development of monitoring efforts, and perform monitoring.



(5) Education and Information Dissemination

An integral component of this water management program for the Autonomous Municipality of Bayamón is to provide a forum dedicated to identifying and discussing relevant water-related issues. This forum is structured for a broad sharing of data, information, experience, technology, and perspectives on key water issues targeted by the community. Information dissemination and education foster partnerships and raise the level of awareness of water resource issues. A proactive water management strategy is maintained through education and the open exchange of information and technical expertise. The objectives are to share data, information, experience, technology, and perspectives on key water issues targeted by the community and to keep the public abreast of new developments regarding the region's water resources.

(6) Development of a Watershed Management

The evaluation of how those activities affect the hydrology, ecology, and economy of the municipality. The valuable information obtained from the previously mentioned programs will be used to create a framework for an overall watershed strategy for the Municipality by first developing a watershed management conceptual model. The framework will help to determine what information is missing and what other factors need to be considered in order to develop the conceptual model. A model that incorporates changing demographics, land uses, water supply and demands, environmental health and ecologically sensitive areas, and a host of other information will be an essential tool for shaping a water management strategy. The emphasis is to create a strategy, rather than a plan, with which to approach watershed issues. The distinction is important if the goal of making tangible progress in solving present and future basin issues is to be achieved.

The objective of this task is to provide the Municipality and other watershed management entities with information vital to making informed decisions needed to ensure a reliable and safe water supply well into the future.

## 2.0 DEFINITIONS

- (1) **Best Management Practices:** (*BMPs*) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. *BMPs* also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

- (2) **Control Measure:** any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States.
- (3) **Clean Water Act:** (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.
- (4) **Discharge:**, when used without a qualifier, refers to "discharge of a pollutant" as defined at 40 CFR 122.2.
- (5) **Illicit Connection:** means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.
- (6) **Illicit Discharge:** is defined at 40 CFR 122.26(b)(2) and refers to any discharge to a municipal separate storm sewer that is not entirely composed of storm water, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire fighting activities.
- (7) **MEP:** an acronym for "Maximum Extent Practicable," the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by CWA §402(p). A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34.
- (8) **MS4:** an acronym for "Municipal Separate Storm Sewer System" and is used to refer to either a Large, Medium, or Small Municipal Separate Storm Sewer System (e.g. "the Dallas MS4"). The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities (e.g., the Houston MS4 includes MS4s operated by the city of Houston, the Texas Department of Transportation, the Harris County Flood Control District, Harris County, and others).
- (9) **Municipal Separate Storm Sewer:** is defined at 40 CFR 122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

- (10) **NOI:** an acronym for “Notice of Intent” to be covered by this permits and is the mechanism used to “register” for coverage under a general permit.
- (11) **Permitting Authority:** means the EPA Regional Administrator or an authorized representative.
- (12) **Small Municipal Separate Storm Sewer System:** is defined at 40 CFR 122.26(b)(16) and refers to all separate storm sewers that are owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States, but is not defined as “large” or “medium” municipal separate storm sewer system. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.
- (13) **Storm Water:** is defined at 40 CFR 122.26(b)(13) and means storm water runoff, snow melt runoff, and surface runoff and drainage.
- (14) **Storm Water Management Program: (SWMP)** refers to a comprehensive program to manage the quality of storm water discharged from the municipal separate storm sewer system.
- (15) **SWMP:** an acronym for “Storm Water Management Program.”
- (16) **Urbanized Area:** comprises a place and the adjacent densely settled surrounding territory that together have a minimum population of 50, 000 people. The “densely settled surrounding territory” adjacent to the place consists of a territory made up of one or more contiguous census blocks having a population density of at least 1,000 people per square mile that it is:
- a. Contiguous with and directly connected by road to other qualifying territory, or
  - b. Noncontiguous with other qualifying territory, and:
    - (1) Within 1 ½ road miles of the main body of the urbanized area and connected to it by one or more non-qualifying census blocks that [a] are adjacent to the connecting road and [b] together with the outlying qualifying territory have a total population density of at least

- 500 people per square mile, or
- (2) Separated by water or other undeveloped territory from the main body of the urbanized area, but within 5 road miles of the main body of the urbanized area, as long as the 5 miles include no more than 1 ½ miles of otherwise non-qualifying developable territory.

### **3.0 COVERAGE AREAS**

The Municipality of Bayamón is partially located within an urbanized area as determined by the latest Decennial Census of 2000. Therefore, the Storm Water Management Plan was prepared for the MS4's systems within those areas of coverage

The estimated square mileage served by the MS4s System is 35.5 m<sup>2</sup>. However, it must be noted that a more accurate estimate can be provided as the Municipality implements the proposed Storm Water Management Plan and develops the Storm Water Map.

In general terms, the Municipality operates a MS4 which includes the old urban area and rural areas within the municipality. The Bayamón MS4 is interconnected with the storm water sewer system operated and maintained by the Puerto Rico Department of Transportation and Public Works and that of the Highway and Transportation Authority. The Bayamón MS4s in the urban areas in general consist of a series of catch basins, typically located within the right-of-way of municipal and state roads, interconnected by underground concrete or PVC pipes which normally discharge to the Atlantic Ocean. In the rural areas the MS4s typically consists of a series of interconnected open channel culverts, which run parallel to municipal and state roads, and usually discharge to a surface water body. Interconnected to the Municipal MS4s system are the storm water sewer systems owned and operated by the Puerto Rico Department of Transportation and Public Works and the Puerto Rico Highway and Transportation Authority.

Also, interconnected to the Municipal MS4s system are the discharges from NPDES permitted facilities and PRASA Pre-treatment permitted industrial and commercial facilities. As the Autonomous Municipality of Bayamón develops the Storm Management Map a more accurate description (capacity, operation, etc.) of the Municipal MS4s system can be provided.

### **3.1 STORM WATER SEWER AREA MAP**

Included in Appendix A (Figures) is a map depicting the geographical extension of the Autonomous Municipality of Bayamón and the water bodies within the municipal boundaries. At the present time, the municipality lacks the information and resources needed to develop a detail storm sewer map for the municipal operated MS4.

As part of the implementation phase of the NPDES it is the intention of the Autonomous Municipality of Bayamón to develop such map. It is anticipated that at a minimum the map will include information related to:

- Municipal Owned and Operated Roads Storm Sewer Systems interconnected with the Municipal Storm Sewer System;
- State Owned and Operated Roads Storm Sewer Systems interconnected with the Municipal Storm Sewer System;
- Water Filtration Plants Owned and Operated by the Puerto Rico Aqueduct and Sewer Authority (PRASA), including intakes and outfalls;
- Waste Water Treatment Plants Owned and Operated by the Puerto Rico Aqueduct and Sewer Authority, including outfalls;
- Hazardous Waste Treatment, Storage and Disposal Facilities;
- Non-Hazardous Solid Waste Treatment, Storage and Disposal Facilities;
- NPDES permitted industrial facilities interconnected with the Municipal Storm Sewer System;
- NPDES permitted industrial facilities discharging to a surface water body;
- Commercial Facilities (Regulated under the PRASA Pretreatment Program) interconnected with the Municipal Storm Sewer System or discharging to a surface water body;
- Drinking, Irrigation or Commercial Groundwater Wells; and
- Surface water bodies (lakes, rivers, creeks, ocean); and
- Municipal Storm Sewer System, including outfall locations.

#### **4.0 DISCHARGES TO WATER QUALITY IMPAIRED WATERS**

The Puerto Rico Environmental Quality Board (PREQB) is in the process of developing the *Total Maximum Daily Load (TMDL's)* for the impaired water of various watersheds in Puerto Rico, but, at this moment does not have TMDL's data for the water bodies of Bayamón. None of the less, the Municipality has selected a mix of BMP's and Measurable Goals that will achieve the objective of satisfying the appropriate water quality requirements of the Clean Water Act.

#### **5.0 STORM WATER MANAGEMENT PROGRAM**

The Autonomous Municipality of Bayamón has developed the Storm Water Management Program to meet the regulatory requirements of the National Pollutant Discharge Elimination System (NPDES) Phase II Rule. The components of this program include management practices; control techniques, design and engineering methods for the six minimum control measures that will reduce pollutant discharges to the water bodies. The

Storm Water Management Program is designed to reduce the discharge of pollutants from the MS4's to the maximum extent practicable (MEP) to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act and the requirements of the Puerto Rico General NPDES Permit for General NPDES Permit for Discharge from MS'4 (PR04000).

## **5.1 MINIMUM CONTROL MEASURES**

### **5.1.1 Minimum Control Measure 1 – Public Education and Outreach**

The SWMP activities implemented under Minimum Control Measure (MCM) 1 will focus on increasing public awareness of the harmful effects of storm water runoff and its potential to affect the water quality in the Bayamón small regulated municipal separate storm sewer systems (MS4's. Services and educational information will be made available to the public to promote practices conducive to the reduction of pollution that results from storm water runoff. The outreach program and educational activities must target the following pollutant Sources: sediment deposition caused by construction activities, biological pollutants such as pet droppings, as well as chemicals, metals, and other toxic substances produced mainly in the household that can damage the water quality. Outreach programs and educational activities that demonstrate the impacts of storm water discharges will be developed and implemented within the permit term to increase the general level of understanding of the SWMP throughout the community.

#### **5.1.1.1 Target Audience**

Activities planned under the Public Education and Outreach portion of the Storm Water Management Plan (SWMP) will be directed toward the citizens of the community, including students and citizens of all age groups.

#### **5.1.1.2 Best Management Practice - Storm Water-Related Public Service Announcements**

The municipality shall develop, produce, and air five 30-second radio-based storm water-related public service announcement (PSA) segments to increase the public awareness of the storm water pollution issues within the area. These PSAs will highlight the impacts of storm water in the community.

##### **5.1.1.2.1 *Mensurable Goal***

The development of the storm water-related segments; and the number of segments radioed each year.

#### **5.1.1.3 Best Management Practice – Educational Involvement/ Partnerships/ Outreach with the Schools**

The Municipality shall develop an educational program to reduce the storm water pollutants. Components of the educational program shall include the development of

informational materials and brochures, presentation packets for distribution to the schools, and surveys for gauging program effectiveness. Topics shall include a listing and description of typical storm water runoff contaminants, the identification and reporting of illicit discharges, proper disposal of household toxic waste, and volunteer opportunities for conducting stream surveys and cleanups.

*5.1.1.3.1 Measurable Goal*

A minimum of 50% of all grade school children will be educated every two years on storm water pollution issues.

*5.1.1.5 Best Management Practice - Educational Outreach to Community Homeowners on Lawn Care*

The Municipality, in partnership with local commercial entities, and area university extension services, will plan, design, and develop a regional lawn care education and outreach program highlighting storm water runoff issues. This program will include coverage of items such as the natural conditions of the area; discussion of typical soil types and conditions; soil analysis and improvements; appropriate vegetation selection; alternatives to typical turf grass; efficient irrigation; and the proper use of mulches, fertilizers, and pesticides.

*5.1.1.5.1 Measurable Goal*

Sponsor an annual lawn care seminar in cooperation with local universities and business.

Sponsor a Master Gardener program including a lawn and garden show and monitor the number of partnerships established with local lawn care businesses, suppliers, and retail stores.

Monitor the number of property owners that attended training workshops for lawn and garden care and attendance at lawn care seminars sponsored by the partnership.

*5.1.1.6 Best Management Practice - Development and Distribution of Storm Water-Related Materials*

The Municipality will develop a community newsletter to convey storm water information throughout the area and will also develop a "toolbox" of public outreach activities that can be used for community education and outreach with respect to storm water pollution issues. A wide variety of public outreach measures and concepts will be compiled from which the Municipality can pick and choose for use throughout the permit term. Items or concepts that will be considered for the toolbox may include utility bill stuffers, pamphlets, booklets, flyers, a storm water video, production of a newspaper "Tip of the Week," radio PSAs, and notices in daily news sheets. Toolbox items developed and used throughout the permit term will be tracked by permit year.

*5.1.1.6.1 Measurable Goal*

The number of copies in circulation and the number of toolbox items used. At least one storm water pollution prevention message in every newsletter and the number of copies in circulation.

*5.1.1.7 Best Management Practice - Storm Water Web Page*

The Municipality shall develop a storm water Web page associated with its existing Web site. This Web site shall have counters to monitor number of monthly visits.

*5.1.1.7.1 Measurable Goal*

The number of visits to the storm water Web page.

*5.1.1.8 Best Management Practice - Development of an Expanded Regional Interactive Storm Water Initiative by leading an annual meeting on SWMP with the participation of leaders of the region*

The Municipality, in partnership with the communities and adjacent municipalities, shall develop a larger regional educational initiative to convey information regarding storm water pollution. An annual SWML meeting coinciding with the annual public event to promote regional awareness on storm water issues

*5.1.1.8.1 Measurable Goal*

The list of regional participants in annual SWMP meeting; and the number of communities regarding regional initiatives resulting from this meeting..

*5.1.1.9 Best Management Practice -Storm Water Pamphlets, Booklets, and Flyers*

In partnership with the U. S. Environmental Protection Agency (EPA) and State Agencies, shall develop storm water pamphlets, booklets, and flyers that are intended to solicit interest in a specific storm water event or activity or to promote storm water education and positive behaviors. Pamphlet racks shall be set up at libraries, schools, offices, and fairs. Pamphlets and booklets shall be passed out at public meetings and can be used in a utility bill stuffer campaign.

*5.1.1.9.1 Measurable Goal*

A list compiled of target audiences and possible activities for each; and the number of materials created and distributed and/or displayed.

The number of people at an event who saw the display (signed the guest book) or took a pamphlet/booklet.



5.1.1.11 BMP Implementation Schedule and MCM 1 Performance Measures  
Implementation Planned Performance Measures

**Year 1** Develop educational pamphlets, booklets, and flyers; develop a storm water Web site; expand newsletter; develop and produce the PSA Water Spots series; expand educational programs for local schools; hold the annual Water Festival; hold the annual public meeting on the SWMP

**Year 2** Expand the partnership with the schools; develop the public advertisement toolbox; continue educational programs at local schools; hold the annual Water Festival; hold the annual public meeting.

**Year 3** Develop a the newsletter and achieve 50% of distribution goals; continue educational programs at local schools;; hold the annual Water Festival; hold the annual public meeting.

**Year 4** Continue the newsletter and achieve 100% of distribution goals; continue the lawn maintenance program; continue educational programs at local schools; hold the annual Water Festival; hold the annual public meeting

**Year 5** Continue to work on the newsletter; continue educational programs at local schools; hold the annual Water Festival; hold the annual public meeting

**5.1.2 Minimum Control Measure 2 – Public Involvement and Participation**

The SWMP activities implemented under Minimum Control Measure (MCM) 2 will focus on increasing public involvement and participation in reducing the harmful effects of storm water runoff and its potential to affect the water quality. Activities that will reduce or eliminate the impacts of storm water discharges will be developed and implemented within the permit term to increase the general level of involvement in the SWMP throughout the community.

5.1.2.1 Target Audience

Activities planned under the Public Involvement and Participation portion of the Storm Water Management Program (SWMP) will be directed toward all citizens of the community.

5.1.2.2 Best Management Practices - Storm Drain Stenciling Program

The municipal separate storm sewer systems (MS4) shall implement a community program to label storm drains with messages informing citizens not to dump pollutants into the storm sewer inlets. A map will be developed that will highlight the percentage of cleaned inlets.

#### *5.1.2.2.1 Measurable Goals*

The number or percentage of storm drains stenciled; the number of stenciling volunteers and the number of requests received by volunteer groups to participate in the program. The number of door hangers distributed

#### *5.1.2.2.1 Best Management Practices - Annual Cleanup*

The Municipality shall promote an annual cleanup that will directly involve citizens in water pollution prevention and make the community aware that most storm drains discharge untreated waters directly into the river and ocean.

#### *5.1.2.2.2 Measurable Goals*

The number of stream cleanups; the number of cleanup groups or participants; and the quantity of trash and recyclables that were removed by the cleanup. The number of stream miles cleaned.

#### *5.1.2.3 Best Management Practices IV - Adopt-A-Park*

The municipality shall develop a volunteer Adopt-A-Park program as a public outreach tool and shall allow participation by any group or organization within the community. The participants will also "adopt" a designated segment of a surface water body where they will maintain the bank and monitor changes.

#### *5.1.2.3.1 Measurable Goal*

Track the number of participants in Adopt-A-Park program. The number of cleanup groups or participants; and the quantity of trash and recyclables that were removed during cleanup activities. Record the quantity of trash and debris removed by Adopt-A-River volunteers.

#### *5.1.2.4 Best Management Practice - Support of Local Organization(s)*

The municipality shall support local organization that incorporates the ideas and resources of local governments, citizens, nonprofit environmental groups, and local universities into a single organization. This organization sponsors community activities to promote the importance of the resources and its benefits to the community.

#### *5.1.2.4.1 Measurable Goal*

The number of local organizations supported and the number of actions taken as a result of the watershed organization.

#### 5.1.2.5 Best Management Practices - Attitude Survey

The Municipality shall develop the strategy for measuring public awareness using an attitude survey that will determine who should be surveyed and how. The results of the surveys shall be used to educate citizens, show programmatic changes and improvements over the permit term, and evaluate program effectiveness.

##### 5.1.2.5.1 *Mesurable Goal*

The number of citizens solicited to complete surveys, the number of completed surveys.

#### 5.1.2.6 Best Management Practices - Community Hotline

The Municipality will develop the scope of a community hotline to authority with specific storm water questions and problems.

##### 5.1.2.9.1 *Measurable Goals*

The number of calls received by hotlines and t.he number of problems or incidents identified and remedied as a result of hotline calls.

#### 5.1.2.7 BMP Implementation Schedule and MCM 2 Performance Measures Implementation Planned Performance Measures

**Year 1** Get public input; implement a baseline community attitude survey; begin the storm drain stenciling (label 25%); continue the annual cleanup program; Send notice of the annual public meeting.

**Year 2** Consider final recommendations of the public input; implement the storm water hotline; continue the annual cleanup program; continue storm drain stenciling (50%); implement the storm water hotline; continue registering of organizations; hold the annual public meeting.

**Year 3** Continue the annual city cleanup program; complete storm drain stenciling; hold the annual public meeting; continue the hotline; continue registering of organizations; implement Adopt a Park Program.

**Year 4** Implement the Adopt-A-Park program; continue the annual cleanup program; continue storm drain stenciling (maintenance and of drains); hold the annual public meeting and hotline.

**Year 5** Perform the follow-up community survey; continue the city cleanup program; continue the Adopt-A-Park program; continue with storm drain stenciling; hold the annual public meeting, continue the hotline .

### **5.1.3 Minimum Control Measure 3 – Illicit Discharge Detection and Elimination**

The SWMP activities implemented under Minimum Control Measure (MCM) 3 will focus on developing a storm sewer system map showing the location of outfalls and the names and location of all waters receiving those outfalls. Also, the SWMP will be developing, implementing, and enforcing a program that will reduce and eliminate the impacts of illicit discharges into the storm sewer system during the permit term throughout the community.

#### **5.1.3.1 Target Audience**

Activities planned under the Illicit Discharge Detection and Elimination portion of the Storm Water Management Program (SWMP) will be directed toward all citizens, with an emphasis on the industrial and commercial sectors of the community.

#### **5.1.3.2 Best Management Practices - Storm Sewer System Map**

The municipal separate storm sewer systems (MS4) shall develop a storm sewer system map that must show the location of all of the following:

1. Ponds, rivers, streams, coulees, lakes, and wetlands.
2. Structural pollution control devices.
3. Conveyances 24 inches or larger in diameter.
4. Discharge points leaving the system, including the following:
  - a. Discharges from your system to other MS4 systems, waters, or wetlands that may not be part of your system.
  - b. Discharges to the groundwater.
  - c. Overland discharges.
  - d. Anything else that may be considered outlet points of your system.

##### *5.1.3.2.1 Measurable Goals*

The linear feet of conveyances recorded; the number of structural pollution control devices counted; and the number of discharge points recorded.

#### **5.1.3.3 Management Practices - Implement Regulations to Enforce Non-storm Water Discharges**

Through ordinances and resolutions, the Municipality shall prohibit non-storm water discharges into the storm sewer system and shall develop and implement all procedures and actions required to appropriately enforce these regulations.

##### *5.1.3.3.1 Measurable Goals*

The number of ordinances and resolutions passed; and the number of penalties.

#### 5.1.3.4 Best Management Practices - Educational Outreach

The municipality shall educate public employees and commercial and industrial property owners on the hazards of improper waste disposal and ways to detect and eliminate illicit discharges. This information shall be provided through citizen watch groups, information brochures, and volunteer inspection programs of storm drain outfalls.

##### 5.1.3.4.1 *Measurable Goals*

The number of flyers, posters, or other public education tools distributed; the number of illegal discharges reported by citizens; the number of locations determined to be prime areas for illegal discharges; and the number of illegal discharges eliminated.

The number of illicit connections reported by business employees; the number of survey responses indicating a possible illicit connection; and the number of illicit connections found and eliminated.

#### 5.1.3.5 Best Management Practice - Program to Detect, Identify, and Eliminate Illicit Discharges

The Municipality shall develop a program to detect and identify illicit discharges that will follow the four steps outlined below:

1. Identify illicit discharges by using public complaints, identification by municipal staff, and through a regular system maintenance and inspection activities.
2. Identify the source of the illicit discharge.
3. Notify the offending discharger and eliminate illicit discharge.
4. Monitor the following categories of non-storm water flows and if the Municipality identifies any of categories of non-storm water flows as significant contributors of pollutants, then the MS4 shall develop a plan to control and eliminate the contributors to the storm sewer system:

- Water line flushing
- Landscape/Agricultural irrigation
- Diverted stream flows
- Uncontaminated ground water infiltration
- Discharges from potable water sources
- Air conditioning condensation
- Footing drains
- Lawn watering
- Individual residential car washing
- Flows from riparian habitats and wetlands
- Chlorinated water discharges
- Street wash water
- Flows from fire-fighting activities

#### 5.1.3.5.1 *Measurable Goals*

Inventory conducted and sites prioritized for inspection; the number of illicit connections reported by business employees. The number of illicit connections found and eliminated.

#### 5.1.3.6 Best Management Practice - Program to Detect, Identify, and Eliminate Illegal Solid Waste Dumping

Through ordinances and resolutions, the Municipality shall prohibit illegal disposal of waste in an un-permitted area or into a storm drain system. The municipality shall develop and implement all procedures, programs, and actions required to appropriately enforce these regulations.

#### 5.3.6.1 *Measurable Goals*

The number of ordinances and resolutions passed; the number of penalties enforced upon the participants of illegal dumps; and the number of illegal dumps reported by citizens. The number of flyers, posters, or other public education tools distributed.

#### 5.1.3.7 Best Management Practices - Program to Detect, Identify, and Eliminate Wastewater Connections to the Storm Drain System

Through ordinances and resolutions, the Municipality shall prohibit unwarranted connection of a wastewater system to a storm drain system and shall develop and implement all procedures, programs, and actions required to appropriately enforce these regulations. Emphasis shall be placed on nonresidential facilities (industrial or business) primarily during building and reconstruction activities.

#### 5.1.3.7.1 *Measurable Goals*

The number of unwarranted connections reported by citizens and/or business employees and the number of unwarranted connections detected and eliminated.

The number of penalties enforced upon the participants of unwarranted connections.

The number of flyers, posters, or other public education tools distributed or programs started.

The number of new ordinances developed for enforcement of the unwarranted connections.

5.1.3.8 Best Management Practices - Program to Manage Recreational Sewage Discharges

Through ordinances and resolutions, the Municipality shall develop a program to develop and manage recreational sewage measures that seek to regulate wastewater generated from outdoor activities; and shall develop and implement all procedures, programs, and actions required to appropriately enforce these regulations. Emphasis shall be placed on boating and camping activities.

*5.1.3.8.1 Measurable Goals*

The number of citizen complaints made reporting illegal sewage dumping and the number of penalties enforced upon the participants of illegal recreational sewage dumping

The number of flyers, posters, or other public education tools distributed or programs started to inform citizens about recreational sewage dumping policies.

The number of new ordinances developed for enforcement of recreational sewage dumping.

5.1.3.9 Best Management Practices - Program to Detect and Eliminate Sanitary Sewer Overflows

The Municipality shall develop a program to establish policies for designing, screening, and maintaining the sanitary sewer system; and shall develop and implement all procedures, programs, and actions required to appropriately enforce these policies and design considerations of the sanitary sewer system.

*5.1.3.9.1 Measurable Goals*

The number of overflows reported and repaired.

5.1.3.10 Program to Detect and Eliminate Failing Septic Systems

The Municipality shall develop a program to detect and eliminate failing septic systems; and shall develop and implement all procedures, programs, and actions required to appropriately enforce proper siting and sizing, maintenance, and post-construction inspection considerations of the septic system.

*5.1.3.10.1 Measurable Goals*

The number of field tests and screen tests conducted and the number of post construction inspections conducted.

An inventory of tanks and when they were last serviced.

5.1.3.11 BMP Implementation Schedule and MCM 3 Performance Measures  
Implementation Planned Performance Measures

**Year 1** Complete the storm water map survey; and begin the educational training program.

**Year 2** Complete the storm water map; begin writing enforcement ordinances; continue the educational training program; and begin surveys for illicit discharge.

**Year 3** Complete the enforcement ordinance writing; continue the educational program; and continue surveys for illicit discharges.

**Year 4** Continue the educational program and; continue surveys for illicit discharges.

**Year 5** Continue the educational program; and continue surveys for illicit discharges.

5.1.4 **Minimum Control Measure 4 – Construction Site Storm Water  
Runoff Control**

The SWMP activities implemented under Minimum Control Measure (MCM) 4 will focus on developing, implementing, and enforcing a program that will reduce or eliminate the impacts of storm water runoff from construction activities that result in a land disturbance of greater than or equal to one acre into the storm sewer system during the permit term throughout the community.

5.1.4.1 Target Audience

Activities planned under the Construction Site Storm Water Runoff Control portion of the Storm Water Management Program (SWMP) will be directed toward contractors, construction site operators, inspectors, and enforcement personnel.

5.1.4.2 Best Management Practices I - Ordinances or Other Regulatory  
Mechanism

The small regulated municipal separate storm sewer systems (MS4) shall develop ordinances or other regulatory mechanisms to require erosion and sedimentation controls for polluted runoff from construction sites with a land disturbance of greater than or equal to 1/2 acre as well as the necessary approvals to ensure compliance.

5.1.4.2.1 *Measurable Goals*

The number of inspections conducted and the number of penalties imposed.



#### 5.1.4.3 Best Management Practices - General Construction Site Waste Controls

The Municipality shall develop and begin implementation of a program to control and eliminate construction site waste that may impact storm water runoff. This program shall address construction entrances, vehicle maintenance, and equipment washing areas.

##### 5.1.4.3.1 *Measurable Goals*

The number of inspections conducted and the number of penalties imposed.

#### 5.1.4.4 Best Management Practices - Information Submitted by the Public

To further reinforce public participation in the storm water program, the Municipality shall develop procedures for the receipt, tracking, and consideration of public inquiries, concerns, and information submitted regarding local construction activities.

##### 5.1.4.4.1 *Measurable Goals*

Number of noncompliance reports received, number of construction site inspector follow-ups, number of stop-work notices issued.

#### 5.1.4.5 Best Management Practices - Construction Site Inspection and Enforcement

The Municipality shall develop the procedures for construction site best management practices (BMPs) inspections and the enforcement of installed erosion and sedimentation control measures.

##### 5.1.4.5.1 *Measurable Goals*

The number of sites inspected and the number of enforcement actions taken.

#### 5.1.4.6 BMP Implementation Schedule and MCM 4 Performance Measures Implementation Planned Performance Measures

**Year 1** Develop ordinance or other regulatory mechanisms; begin developing procedures for information submitted by the public.

**Year 2** Implement the ordinance; develop procedures for construction site inspections; begin enforcement of the ordinance; consider public information submitted; and provide the annual report to the primacy.

**Year 3** Complete the enforcement ordinance writing; continue construction site inspections; consider public information submitted.

**Year 4** Continue to increase ordinance enforcement; continue construction site inspections; consider public information submitted.

**Year 5** Fulfill maximum compliance with the ordinance; continue construction site inspections; consider public information submitted.

### **5.1.5 Minimum Control Measure 5 – Post-Construction Storm Water Management in Development and Redevelopment**

The SWMP activities implemented under Minimum Control Measure (MCM) 5 will focus on developing, implementing, and enforcing a program that will reduce or eliminate the impacts of storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects that are less than one acre and are part of a larger development plan, that discharge into the storm sewer system during the permit term throughout the community.

#### **5.1.5.1 Target Audience**

Activities planned under the post-construction Storm Water Management in New Development and Redevelopment portion of the Storm Water Management (SWMP) will be directed toward contractors, construction site operators, inspectors, and enforcement personnel.

#### **5.1.5.2 Best Management Practices I – Structural**

The Municipality shall require new developments the incorporation of dry/wet extended detention ponds or basins with outlets that have been designed to detain the storm water runoff to allow pollutants to settle. These ponds shall provide flood control by including additional flood detention storage.

##### *5.1.5.2.1 Measurable Goals*

The number of new dry/wet ponds installed.

#### **5.1.5.3 Porous Pavement Program**

The Municipality shall develop a porous pavement program such that this porous surface replaces traditional pavement, allowing parking lot storm water to infiltrate directly and receive water quality treatment.

##### *5.1.5.3.1 Measurable Goal*

The amount of new porous pavement added or replaced and the number of new development sites that use porous pavement.

#### 5.1.5.4 Vegetative Practices – Stormwater Wetland Program

The small regulated MS4 shall develop a structural storm water wetlands program that incorporates wetland plants into the design. As storm water runoff flows through the wetland, pollutant removal is achieved through settling and biological uptake within the best management practices (BMPs).

##### 5.1.5.4.4 *Measurable Goals*

The number of storm water wetlands created and acreage of impervious surface that drains to storm water wetlands.

#### 5.1.5.5 Vegetative Practices - Grassed Swale Program

The municipality shall develop a series of vegetated, open channel BMPs designed to treat and attenuate storm water runoff for a specified water quality volume.

##### 5.1.5.5.1 *Measurable Goals*

The number of new grassed swales installed and acres drained by grassed swales.

#### 5.1.5.6 Runoff Pretreatment Practices

The Municipality shall develop a catch basin insert or an in-line storage program that shall typically include a grate or curb inlet and a sump to capture sediment, debris, and associated pollutants. Catch basin efficiency shall be improved using inserts that shall be designed to remove oil and grease, trash, debris, and sediment and are designed to drop directly into existing catch basins.

##### 5.1.5.6.1 *Measurable Goals*

Catch basins inventory completed; number of catch basins retrofitted with filtering devices and/or flow regulators.

#### 5.1.5.7 Best Management Practice II – Nonstructural

- (a) Develop a regional growth planning process to contain sprawl development and direct new growth into previously developed areas, discouraging excessive low-density development.
- (b) Develop green parking techniques to reduce the contribution of parking lots to the total impervious and, consequently, the amount of storm water runoff. All of the green parking techniques shall be applied in new developments and some redevelopment projects, depending on the extent and parameters of the project.

- (c) Develop an alternative paver program that can replace asphalt and concrete and can be used for driveways, parking lots, and walkways. Alternative pavers shall replace impervious surfaces, creating less storm water runoff.

*5.1.5.7.1 Measurable Goals*

The reduction in impervious surface area and the number of new green parking lots installed; and the amount of new alternative pavers installations added or replaced.

**5.1.5.8 BMP Inspection and Maintenance Program**

The Municipality shall develop an inspection and repair program to maintain the effectiveness of post-construction storm water control BMPs. All BMPs shall be inspected for continued effectiveness and structural integrity at regular inspection intervals. The inspector shall document whether the BMP is performing correctly, any damage to the BMP since the last inspection, and any repairs to the BMP if damage has occurred.

*5.1.5.8.1 Measurable Goal*

The change in the proportion of BMPs that are well-maintained as a result of inspection and maintenance.

**5.1.5.9 BMP Implementation Schedule and MCM 5 Performance Measures**

- Year 1** Begin development of the strategies for structural and nonstructural BMPs; begin working with local landowners and developers to include these strategies; begin ordinance development.
- Year 2** Implement the strategies for the BMPs; implement the ordinances and construction standards for the BMP development.
- Year 3** Reduce the percent of new impervious surfaces associated with new development projects.
- Year 4** Improved clarity and reduced sedimentation of local water bodies.
- Year 5** Continue enforcement of ordinances and implementation of the BMPs; ensure the adequacy of the long-term operation and maintenance of the BMPs.

### **5.1.6 Minimum Control Measure 6 – Pollution Prevention (Good Housekeeping for Municipal Operations)**

The SWMP activities implemented under Minimum Control Measure (MCM) 6 will focus on developing, implementing, and enforcing an operations and maintenance program that will reduce or eliminate the impacts of storm water pollution from open-space maintenance, snow disposal, vehicle and building maintenance, land disturbances, and storm sewer system maintenance during the permit term throughout the community.

#### **5.1.6.1 Target Audience**

Activities planned under the Pollution Prevention (Good Housekeeping) for Municipal Operations portion of the Storm Water Management Program (SWMP) will be directed toward municipal employees and enforcement personnel.

#### **5.1.6.2 Best management Practices I – Source Controls**

- (b) The Municipality shall develop a pet waste collection program as a source control using a combination of educational outreach and enforcement to encourage residents to clean up after their pets. The pet waste collection program shall use pet awareness and public education, signs, and pet waste control ordinances for proper disposal techniques.
- (b) The Municipality shall develop and implement a pollution prevention measure for an outreach and training program directed at businesses and municipal fleets (public works, school buses, fire, police, and parks) involved in vehicle maintenance.
- (c) The Municipality shall develop and begin implementation of a management measure that involves educating the general public, businesses, and municipal fleets (public works, school buses, fire, police, and parks) on the water quality impacts of the outdoor washing of vehicles.
- (d) The Municipality shall develop procedures for the control of storm water impacts from landscaping and lawn care practices through education and outreach on the amount of storm water runoff generated from lawns. Employees of lawn and garden centers shall be trained in spreading the message regarding lawn care and pollution control. One step in developing the education program shall be to select outreach techniques that use radio, direct mail, and signs to broadcast to a large audience. Intensive training programs designed for a more focused audience shall use workshops, consultation, and guidebooks.
- (e) The Municipality shall develop integrated pest management (IPM) procedures for limiting the impact of pesticides on water quality by educating residents and businesses on alternative uses, proper storage, and application techniques. The small regulated MS4's IPM program shall incorporate preventative practices in

- combination with non-chemical and chemical pest controls to minimize pesticides and promote natural control of pest species. Education shall be provided in the form of informational brochures.
- (f) The Municipality shall develop procedures for pavement cleaning practices, such as street sweeping, on a regular basis, to minimize pollutant discharge to receiving waters. These cleaning practices shall be designed to remove surface sediment, debris, and other pollutants that are a potential source of pollution.
  - (g) The Municipality shall develop procedures for techniques that will reduce or eliminate pollutant loadings from road surfaces as part of an operation and maintenance program. This plan shall be developed for sediment and pollutants that are generated during roadway and bridge use and scheduled repair operations.
  - (h) The Municipality shall develop procedures for the regular inspection and cleaning of storm drain systems to reduce the amount of pollutants, trash, and debris. This program shall be applied to material and waste handling areas, paved and vegetated areas, waterways, and new development projects. Based on inspection results, repair or replacement measures shall be determined for proper operation. A summary of all inspections and repairs shall be maintained and submitted in the annual report.

#### *5.1.6.2.1 Best management Practices I – Source Controls*

- (a) The number of signs posted stating regulations and the number of educational materials distributed.
- (b) The number of employees trained in preventing pollution from automobile maintenance activities and the number of spills reported. The number of educational materials distributed at garages, auto shops, and other automobile-related businesses.
- (c) The number of educational materials distributed to municipal employees and the number of designated municipal vehicle washing areas.
- (d) The number of stores and gardens participating in the education program and the number of people trained in safe landscaping, lawn care, and pest management techniques.
- (e) Inventory of roads and parking lots prioritized for cleaning. The number of scheduled parking and road cleanings.
- (f) Inventory of bridges and quantity of debris removed from construction sites.
- (g) The number of catch basins at constructions sites that are cleaned regularly.

### 5.1.6.3 Best management Practices II – Materials management

- (a) The Municipality shall develop procedures for the use of alternative products that will prevent their hazardous counterparts from being disposed of improperly and contaminating storm water. The Municipality shall compile a list of alternative products and post it on their storm water web site, publish it in a newsletter, include it as an insert in a utility bill, or produce magnets or other household products with a select list of non-hazardous alternatives.
- (b) The small regulated MS4 shall develop procedures for storage of hazardous materials. Storage spaces and containers shall be routinely inspected for leaks, signs of cracks or deterioration, or any other signs of release. Storage areas, outdoor material deposits, loading and unloading areas, and raw materials shall all be covered or enclosed.
- (c) The municipality shall develop procedures for spill response and prevention plans that shall state how to stop, contain, cleanup, dispose of contaminated materials, and train personnel to prevent and control future spills. This plan shall be applicable to all sites where hazardous wastes are stored or used.
- (d) The Municipality shall develop procedures to make recycling motor oil and oil filters more convenient. This plan shall provide the public with the proper informational resources to encourage the public to contact local service stations, municipal government offices, or the local environmental or health departments if they have questions or problems.
- (e) The Municipality shall develop procedures for responsibly managing chemicals, such as fertilizers, solvents, paints, cleaners, and automotive products.
- (f) This program shall include practices for managing materials by improving the maintenance of industrial machinery, establishing material storage and inventory controls, improving routine cleaning and inspection of facilities where materials are stored or processed, maintaining organized workplaces, and educating employees.

#### 5.1.6.3.1 *Measurable Goals*

- (a) The number of facilities storing hazardous materials; the number of personnel trained in hazardous-material handling and storage.
- (b) The total number of storage facilities equipped to store hazardous materials.
- (c) The number of materials distributed educating citizens on home storage of hazardous materials.
- (d) The number of leak-detection devices installed at municipal facilities; development of a spill response plan was developed for municipal facilities.

- (e) The number of personnel trained in spill response.
- (f) The number of gallons of used oil collected from municipal operations And the number of recycling facilities that collect oil from municipal operations.

5.1.6.4 BMP Implementation Schedule and MCM 6 Performance Measures

**Year 1** Develop the strategies for structural and nonstructural management practices; develop a training program; develop a recycling plan; complete the pollution prevention plan; develop a storm sewer inlet cleaning program; develop regular street sweeping program.

**Year 2** Implement an employee training plan; develop runoff enforcement ordinances; implement a recycling program.

**Year 3** Continue with employee training and the recycling plan; implement runoff ordinances; develop and implement a best management practices (BMP) maintenance program.

**Year 4** Continue with employee training and the recycling plan; implement runoff ordinances; develop and implement a best management practices (BMP) maintenance program.

**Year 5** Continue with employee training and the recycling plan; implement runoff ordinances; develop and implement a best management practices (BMP) maintenance program



## **6.0 IMPLEMENTATION RESPONSIBILITIES**

The Planning Office is responsible for the implementation or coordination the Storm Water Management Plan. Other municipal offices may participate in the implementation of BMP's. A list

## **7.0 STORM WATER REVIEWS AND UPDATES**

The Municipality of Bayamón will perform an annual review of the Storm Water Management Program and will prepare an annual report as required by the Permitting Authority. Based on the annual review, if the Municipality of Bayamón wishes to change or replace an ineffective or unfeasible BMP with an alternate one, it will be made in accordance with the following procedures:

- The Municipality will notify in written to the Permitting Authority the addition of any components, controls, or requirements to the Storm Water Management Program.
- The modification requests will include the following:
  - Analysis of why the BMP is ineffective or infeasible (including cost prohibitive);
  - Expectations on the effectiveness of the replacement BMP
  - Analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.
  -

The written notifications will be included in this document in the Appendix D.

## **7.1 MONITORING AND REPORTING**

Under the direction of the Municipality Planning Department, a written annual report will be prepared and submitted to the US EPA at the end of each year.

During the process of the annual review, the Municipality of Bayamón will evaluate the program compliance, the suitability of the best management practices and progress toward achieving the measurable goals.

## **8.0 STORM WATER MANAGEMENT PLAN CERTIFICATIONS**

### **8.1 STORM WATER MANAGEMENT PLAN CERTIFICATION**

I certify' under Penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
Major, Municipality of Bayamón

\_\_\_\_\_  
Date

## 8.2 STORM WATER MANAGEMENT PROGRAM DIRECTOR CERTIFICATION

I certify' under Penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
Storm water Management Program Director

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

### **8.3 STORM WATER MANAGEMENT PLAN BMP COORDINATOR CERTIFICATION**

Each BMP coordinator has executed the following certification which is included in appendix E.

I certify' under Penalty of law that I read this document and all attachments and I will comply with my responsibility to implement the following BMP:  
\_\_\_\_\_ for the Minimum Control Measure  
\_\_\_\_\_. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**APPENDIX A**  
FIGURES

**APPENDIX B**  
PR04000-NPDES GENERAL PERMIT FOR DISCHARGE FROM MS'4

**APPENDIX C**  
NOTICE OF INTENT

**APPENDIX D**  
CHANGES TO SWMP



**APPENDIX E**  
CERTIFICATIONS