



UNIVERSITY OF PUERTO RICO - ARECIBO

STORMWATER MANAGEMENT PLAN 2017

ABSTRACT

The Stormwater Management Plan of the UPR-Arecibo was developed for compliance with the Clean Water Act under the 2016 NPDES Phase I Municipal Stormwater Permit

March 2017



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1 Acronyms

BMP	Best Management Practices
CES	Control de Erosión y Sedimentación
CWA	Clean Water Act
EPA	Environmental Protection Agency
ESA	Endangered Species Act
GIS	Global Information Systems
GP	General Permit
GPS	Global Positioning System
IDDE	Illicit Discharge Detection and Elimination
LID	Low Impact Development
MCM	Minimum Control Measures
MEP	Maximum Extent Practicable
MS4	Municipal Separate Sewer System
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
PRASA	Puerto Rico Aqueduct and Sewer Authority
PRDNER	Puerto Rico Department of Natural and Environmental Resources
PREQB	Puerto Rico Environmental Quality Board
SOP	Standard Operating Procedures
SHPO	Puerto Rico State Historic Preservation Office
SWMP	Stormwater Management Plan
TMDL	Total Maximum Daily Load
USGS	United States Geological Survey

2 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. **General Permit:** refers to the EPA Region 2 Small MS4 General Permit for Puerto Rico number PRR040000 effective on July 1,2016.
5. **Historic Property:** Historic properties are defined in the NHPA regulations 36 CFR § 800.16(1) to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties.
6. **Illicit Connection:** means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.
7. **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 firefighting activities.
8. **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.
9. **MS4:** an acronym for "Municipal Separate Storm Sewer System". It is used to refer to a Large, Medium, or Small Municipal Separate Storm Sewer System (e.g. "the Dallas MS4"). The term is also 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.

- 10. 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.
- 11. 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.
- 12. Outfall:** An outfall means a point source as defined by 40 CFR § 122.2, and is the point where the municipal separate storm sewer discharges to waters of the United States. An outfall does not include open conveyances connecting two municipal separate storm sewers or pipes, tunnels or other conveyances that connect segments of the same stream or other waters of the United States and that are used to convey waters of the United States (40 CFR § 122.26(b)(9)).
- 13. Permitting Authority:** means the EPA Regional Administrator or an authorized representative.
- 14. 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.

15. **Storm Water:** is defined at 40 CFR 122.26(b) (13) and means storm water runoff, snow melt runoff, and surface runoff and drainage.
16. **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.
17. **Undertaking:** is defined in the NHPA regulations 36 CFR § 800.16(y) to include a project, activity, or program of a Federal agency including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval.
18. **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:
 - i. 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
 - ii. 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 Basic SWMP Information

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 Clean Water Act (CWA) water quality requirements and technology standards.

A Stormwater Master Plan for the University of Puerto Rico – Arecibo provides guidance and recommendations for reducing the negative stormwater runoff impacts that are created by the impervious (building and paved) surfaces of the University campus. The purpose of the plan is to aid campus planning by identifying opportunities to incorporate sustainable stormwater management practices into future projects. These opportunities will contribute to the University's goals for increased environmental sustainability, increased green space, and reduced utility costs associated with stormwater runoff.

Stormwater runoff from the vast majority of the campus property and the City/State streets that cross through the campus is drained via City/State-owned combined storm/sanitary sewers to Sewer Treatment Plants (SWTP). During rainfall events, the capacity of the SWTPs may be overwhelmed and a combination of polluted stormwater and raw sewage is discharged directly into the tidal portion of the Atlantic Ocean. Such an event is referred to as a Combined Sewer Overflow (CSO).

This stormwater management program planning document was developed by University of Puerto Rico - Arecibo to describe the activities and measures that will be implemented in urbanized areas to meet the terms and conditions of the General Permit (GP) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in urbanized areas of the Commonwealth of Puerto Rico.

The University of Puerto Rico-Arecibo owns and operates a non-conventional MS4 located in the urban areas of the Municipality of Arecibo. Municipality delimitation identifying urban areas within municipal's wards is shown in **Figure No. 1**.

On July 1, 2016, EPA Region 2 issued the final 2016 GP for all Small MS4 in Puerto Rico. This version replaces the previous 2006 GP. This permit and the authorization to discharge shall expire at midnight, June 30, 2021 (**see Appendix M**).

The University of Puerto Rico-Arecibo submitted a Notice of Intent (NOI) on September 29, 2016 requesting coverage under the 2016 GP (PR04000) in accordance with the Storm Water Phase II Rule (**see Appendix A**).

3.1 Staff Organization

The staff consists of university personnel and the offices that must work together to implement, maintain and revise the SWMP. When there is a change in administration or personnel, the designated personnel

responsible for the continued implementation of the SWMP must be brief on all aspects of the program before the other administration leaves office.

The designated members of the SWMP staff are:

- Dean of Academic Affairs
- Dean of Administrative Affairs
- Dean of Student Affairs
- Office of Planning and Institutional Research Director
- Chancellor Special Assistant
- Infrastructure Resources Director
- Environmental Protection, Occupational Health and Safety Office Director

The following are basic staff responsibilities:

- To implement the NPDES permit and the SWMP requirements.
- To be aware of changes made to the university operations and determine if any update to the SWMP must be made.
- To implement and oversee the employee training and inspection program.
- To coordinate the implementation of the Best Management Practices (BMP), review the effectiveness of the SWMP, and update it as needed.
- To report and document all activities of the program and any problem encountered.

Table 1. SWMP Staff

Name/Title	Phone	Responsibilities
Elaine Y. Santiago Sindo – Stormwater Management Plan Coordinator	(787) 815-0000 Ext 3630	<ul style="list-style-type: none">• Implement the SWMP requirements and BMP's• Implement employee-training program and inspections• Record keeping and reporting• Update SWMP as needed• Monitor compliance
Stormwater Management Staff	(787) 815-0000 Ext 3630	<ul style="list-style-type: none">• Review SWMP effectiveness• Implement good house keeping• Report results and advise of problems encountered• Perform material inventories and inspections

The staff will gather at regular meetings held at least quarterly. During these meetings, the staff will discuss the tasks of the SWMP, review its implementation progress, address comments and suggestions received from others, and determine whether changes to the SWMP is needed to meet its objectives. The staff will revise the SWMP as necessary.

3.2 Urbanized Areas

The University of Puerto Rico - Arecibo Campus is located at the PR-653 Road, Km. 0.8, Las Dunas Sector, Hato Abajo Ward in Arecibo, Puerto Rico. It is located at the approximate coordinates of Latitude 18° 28' 11" and Longitude 66° 44' 30". The Campus property covers an area of approximately 50 acres on which several buildings covering a total area of approximately 355,000 square-feet (sf) are located. The UPR-Arecibo Campus' facilities include 78 classrooms, 18 laboratories for different educational subjects, parking areas, several sport facilities and associated infrastructure.

The UPR-Arecibo Campus is located in the northern part of Puerto Rico in an area of significant agricultural, industrial and economic development. The UPR-Arecibo Campus is a superior education academic institution, designed to principally serve the northern central Region of the Island. The University offers 34 academic programs with Bachelor and associated degrees as well as transfer programs. The main Departments and programs offered by the UPR-Arecibo Campus include:

- Business Administration
- Biology
- Social Sciences
- Education
- Human sciences
- Physics
- Engineering programs transfers
- Computer Sciences
- Mathematics
- Communications
- Nursery
- Chemistry
- Office Systems; and

The UPR-Arecibo Campus has an average annual student enrollment of approximately 4,000 students, approximately 260 faculty members and approximately 540 employees. **(Appendix B)** Urbanized Area Map.

3.3 Receiving Waters and Drinking Water Sources

3.3.1 Hydrology

The receiving waters for the UPR-Arecibo stormwater system are coastal areas north of the main campus. Stormwater from the facility runs through the drainage system (culverts, pipes, and open channels) into the stormwater system owned and managed by the City of Arecibo and the Puerto Rico Department of Transportation and Public Works. **(Appendix C)** Hydrology Map.

Table 2. Receiving Water Data Summary Table

Receiving Waterbody Segments	WQS Classification	Impairment/Pollutant of Concern	Applicable WLA's	# of Discharging Outfalls
PRNC03 (Punta Manglillo to Punta Morrillos)	SB	Collection System Failure (0500) Urban Runoff/Storm Sewers (4000) Onsite Wastewater Systems (6500) Upstream Impoundment (7350)	N/A	Unknown

Table 2a. Interconnected MS4 Arecibo and PRDTOP Receiving Water Data Summary Table

Receiving Waterbody Segments	WQS Classification	Impairment/Pollutant of Concern	Applicable WLA's	# of Interconnections
PRNC03 (Punta Manglillo to Punta Morrillos)	SB	Collection System Failure (0500) Urban Runoff/Storm Sewers (4000) Onsite Wastewater Systems (6500) Upstream Impoundment (7350)	N/A	Unknown

4 Endangered and Threatened Species and Critical Habitat

The Endangered Species Act of 1973 (ESA) as amended thereafter by the U.S. Congress, designated the U.S. Fish and Wildlife service (USFWS) with the responsibility and authority to conserve threatened and endangered species and the ecosystems on which those species depend. The National Marine Fisheries Service (NMFS) also has jurisdiction over marine threatened and endangered species.

The MS4 operated by the University of Puerto Rico - Arecibo evaluated if listed threatened or endangered species and critical habitat are present within the MS4 urbanized area. The USFWS official List of Threatened and Endangered Species reports twenty-two (22) species of flora and fauna, which were found to have significant population within the Municipality of Arecibo. The listed threatened and endangered species are presented in **Table 3**.

Table 3. Threatened and Endangered Species

SCIENTIFIC NAME	COMMON NAME	COMMON NAME SPANISH	GROUP	STATUS	DISTRIBUTION
<i>Accipiter striatus venator</i>	Puerto Rican Sharp- Shinned Hawk	Falcon de Sierra	Bird	E	Rio Abajo State Forest
<i>Amazona vittata vittata</i>	Puerto Rican Parrot	Cotorra Puertorriqueña	Bird	E	Rio Abajo State Forest
<i>Auerodendron pauciflorum</i>	No Common Name	No Tiene Nombre Común	Plant	E	Rio Abajo State Forest
<i>Buteo platypterus brunnescens</i>	Puerto Rican Broad- winged Hawk	Guaraguo de Bosque	Bird	E	Rio Abajo State Forest
<i>Calyptronoma rivalis</i>	No Common Name	Palma de Manaca	Plant	T	Rio Abajo State Forest
<i>Chelonia mydas</i>	Green Sea Turtle	Peje Blanco	Reptile	T, CH	Coastal Zones
<i>Cordia bellonis</i>	No Common Name	No Tiene Nombre Común	Plant	E	Rio Abajo State Forest
<i>Cornutia obovata</i>	No Common Name	Palo de Nigua	Plant	E	Rio Abajo State Forest, Near Arecibo

SCIENTIFIC NAME	COMMON NAME	COMMON NAME SPANISH	GROUP	STATUS	DISTRIBUTION
<i>Daphnopsis hellerana</i>	No Common Name	No Tiene Nombre Común	Plant	E	Northern Limestone (Karst) Hills
<i>Dermochelys coriacea</i>	Leatherback Sea Turtle	Tinglar	Reptile	E, CH	Coastal Zones
<i>Epicrates inornatus</i>	Puerto Rican Boa	Boa Puertorriqueña	Reptile	E	Forested Volcanic and Limestone (Karst) Hills
<i>Eretmochelys imbricata</i>	Hawksbill Sea Turtle	Carey	Reptile	E, CH	Coastal Zones
<i>Goetzea elegans</i>	Beautiful Goetzea	Matabuey	Plant	E	Cambalache State Forest
<i>Myrcia paganii</i>	No Common Name	No Tiene Nombre Común	Plant	E	Biafara Arrozal
<i>Ottoschulzia rhodoxylon</i>	No Common Name	Palo de Rosa	Plant	T	Cambalache State Forest, Sabana Hoyos
<i>Pelecanus occidentalis</i>	Brown Pelican	Pelícano Pardo	Bird	D, MP	Coastal Zones, Inland Waterbodies, No Nesting
<i>Peltophryne lemur</i>	Puerto Rican Crested Toad	Sapo Concho	Amphibian	T	Northern Karst Regions
<i>Pleodendron macranthum</i>	No Common Name	Chupacallos	Plant	E	Rio Abajo State Forest
<i>Schoepfia arenaria</i>	No Common Name	No Tiene Nombre Común	Plant	T	Rio Abajo State Forest
<i>Solanum drymophilum</i>	No Common Name	Erubia	Plant	E	Rio Abajo State Forest
<i>Sterna dougallii</i>	Roseate Tern	Palometa	Bird	T	Coastal Areas and Offshore Cays, Nesting
<i>Tectaria estremerana</i>	No Common Name	No Tiene Nombre Común	Plant	E	Rio Abajo State Forest, Near Arecibo Observatory
<i>Trichechus manatus manatus</i>	Antillean Manatee	Manatí Antillano	Mammal	E	Coastal Zones

To satisfy the newly issued NPDES MS4 permit eligibility criteria regarding endangered species, the University of Puerto Rico-Arecibo assessed the potential effects of the MS4 known stormwater discharges and discharge-related activities on listed species or critical habitat and followed the steps outlined in Appendix C of the GP. An initial review of UPR-Arecibo MS4 discharges and related activities indicates that the Municipality does not adversely affect endangered and threatened species. The UPR-Arecibo determined that it meets eligibility under Criterion A: No endangered or threatened species or critical habitats are in proximity to the storm water discharges or discharge related activities.

Consultation with the USFWS office in Puerto Rico was initiated on February 15, 2017. The USFWS reviewed the letter and decided that there are no records of threatened and endangered species at the project area and determined that no further consultation is required (USFWS letter dated Date). A copy of the correspondence is attached in **Appendix D**.

5 Historic Properties

The newly issued GP requires that the discharges authorized by the permit should be in compliance with the National Historic Preservation Act. Coordination with the Puerto Rico State Historic Preservation Office (SHPO) does not indicate any cultural resources, or any properties listed or eligible for listing in the National Register of Historic Places within the UPR-Arecibo MS4. Previous consultation with SHPO under the 2003 GP indicates that there are no historical sites listed or eligible for listing in the area or close proximity to the MS4. A copy of the letter is attached in **Appendix E**.

Table 4. National Historic Properties List within the MS4 Urbanized Area.

National Historic Properties	Location	Stormwater Control Measures (Potential Impact)
Luis Gonzalo Marín	Downtown	None
Cambalache Ridge	PR#2	None
Casa Alcaldía de Arecibo	Downtown	None
Casa Córdoba	Downtown	None
Casa de la Diosa Mita	Downtown	None
Casa Ulanga	Downtown	None
Corregimiento	Downtown	None
Edificio Oliver	Plaza	None
Faro de Arecibo	Los Morrillos – PR#655	None
Gonzalo Marín	Downtown	None
Mercado de Carnes	Arecibo Urban Centre	None

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to consider the effects of Federal “undertakings” on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. The term Federal “undertaking” is defined in the NHPA regulations to include a project, activity, or program of a Federal agency, including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval. See 36 CFR § 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. See 36 CFR § 800.16(1).

Ground disturbances of 1 acre or more require coverage under the Construction General Permit. Where you have to disturb the land through the construction and/or installation of control measures, there is a possibility that artifacts, records, or remains associated with historic properties could be impacted. Therefore, if you are establishing new or altering existing control measures to manage your stormwater that will involve subsurface ground disturbance of less than 1 acre, you will need to ensure (1) that historic properties will not be impacted by your activities or (2) that you are in compliance with a written agreement with the SHPO that outlines all measures you will carry out to mitigate or prevent any adverse effects on historic properties.

6 Map of Separate Storm Sewer System

As required by the General Permit, a copy of the existing storm sewer system map is included in **Appendix F**.

The University of Puerto Rico – Arecibo developed a full set of the storm sewer system map. The map includes the runoff flow and infrastructure construction details (pipe diameters, construction materials, and inlets location).

7 Controls for Targeting Pollutants of Concern

The coastal waters of Arecibo are part of the water quality stations network established by the PR Environmental Quality Board. The receiving waters were not included for TMLD development; however, several pollutants of concern were identified in the 2012 305 (b) Report. The stations established by the EQB are: PRNC03 (Punta Manglillo to Punta Morrillos) (SBZ-007), and PRNC04 (Punta Morrillos to Punta Manatí) (MAC-049, SBZ-008, SBZ-009, MAC-055). According to the document, the waters are identified as SB and the sources of pollution are: Collection System Failure (0500) Urban Runoff/Storm Sewers (4000) Onsite Wastewater Systems (6500) Upstream Impoundment (7350). The report does not propose new means of managing Stormwater but recommends a continuation and expansion of existing practices as well as targeting priority areas. Possible BMPs and structures for controlling these pollutants in the Arecibo coastal waters include, but are not limited to: retention and detention ponds, infiltration systems, impervious surface reduction, practices such as street sweeping, housekeeping practices, appropriate construction sequencing, maintenance of sediment collection structures, and public education.

The University of Puerto Rico - Arecibo already employs some of the recommended BMPs listed in the previous permit and will continue to control the discharge of pollutants by the use of the BMPs listed in the SWMP. Campus Design Standards have provisions for low impact development encouragement which include but are not limited to: water conservation, stormwater runoff reduction, pervious concrete and asphalt designs, minimization of paved and impervious surfaces, site grading to reduce the amount of directly connected impervious surfaces, onsite detention and roof runoff capture.

7.1 Controls for Existing Discharges to Impaired Waters with TMDL's

There are no Impaired Waters with TMDL's near the UPR-Arecibo Campus.

7.1.1 Targeted Controls and Associated Measurable Goals

Control Measure	BMP TMDL1 – Control Description
Measurable Goal	Does not apply
Person or Department	N/A

Responsible

Control Measure	BMP TMDL2 – Control Description
Measurable Goal	Does not apply
Person or Department Responsible	N/A

7.1.2 Assessing Progress Toward Meeting [Insert Pollutant of Concern] Benchmark Goals

This Section does not apply to the University of Puerto Rico – Arecibo.

7.2 Controls for Existing Discharges to Impaired Waters without TMDL's

This Section does not apply to the University of Puerto Rico - Arecibo

Turbidity

The University has targeted those Municipal Operation and Maintenance activities with the potential to result in the discharge of the identified pollutants of concern, and developed Standard Operating Procedures (SOPs) for landscape maintenance that are designed to target and reduce the discharge of high temperature waters as well as the other pollutants of concern listed in the SWMP. Further information about good housekeeping and municipal maintenance SOPs can be found in the Appendix of the University's SMWP.

The Outreach and Education program is targeted at specific groups on Campus: Residents, MS4 Staff, Developers and Construction Contractors, and Institutions, Industrial and Commercial Facilities. Information includes: preventing stormwater runoff from becoming polluted and about the University's prohibition against illicit discharges. Outreach and Education efforts from the MS4 Permit are incorporated to reduce Thermal Modifications; further information can be found in the Appendix of the University's SWMP.

Targeted Controls and Associated Measurable Goals

Control Measure	BMP – Control Description
Measurable Goal	Does not apply
Person or Department Responsible	N/A

Control Measure	BMP – Control Description
Measurable Goal	Does not apply
Person or Department Responsible	[N/A]

8 **Legal Authority and Enforcement**

The majority of the MS4 is comprised of University of Puerto Rico-Arecibo owned and operated facilities. Through its ownership and control, the University controls discharges to and from the MS4, as described in this plan. The University will have the responsibility to implement all measures within this SWMP.

The University of Puerto Rico - Arecibo is both responsible for and has legal authority for stormwater discharges from both University owned and non-University facilities. This legal authority includes enforcement of storm water requirements and regulations. The University is not responsible for or in control of the quantity or quality of water flowing into their storm drain system, and other properties within the University.

The UPR-Arecibo will reissue an Interpretative Letter to require the consideration of all activities that may have an impact on water bodies. This will include illicit discharges, construction and post-

construction runoff for new developments and redevelopments. The University of Puerto Rico-Arecibo developed a Standard Operating Procedure for all its activities that may have an impact on water bodies receiving discharges from their MS4 system.

(Appendix G) Copy of the Interpretative Letter and SOP in use by the UPR-Arecibo.

8.1 Targeted Controls and Associated Measurable Goals

Control Measure	BMP LA1 – Modify Adequate Legal Authority
	The UPR-A re-issued the Interpretative Letter in 2017 to oversee daily operations. If needed during the 5-year term, the document can be modified to address any request from the regulator or the UPR Administrators.
Measurable Goal	Reduce pollution from University daily operations
Person or Department Responsible	Campus Chancellor Office

9 Controls to Reduce Pollutants to the Maximum Extent Practicable

The University of Puerto Rico at Arecibo 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 to the maximum extent practicable (MEP) the discharge of pollutants from the MS4 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 MS'4.

9.1 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. The outreach program and educational activities must target the following pollutant Sources: sediment deposition caused by construction activities, biological pollutants such as: sediment, bacteria, nutrients, pesticides, metals, organic pollutants and oil and grease. The Municipality shall create new tasks as necessary, implement and modify any existing public education and outreach element to continue reducing to the MEP the discharge of pollutants into the MS4.

9.1.1 Targeted Controls and Associated Measurable Goals

Control Measure	BMP PE1 – Collect brochures, fact sheets and other educational materials from the EPA and other agencies.
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Measurable Goal	Number of University students reached (4,000/year), employees and faculty. The administration conducted the task on a yearly basis instead of twice a year due to limited resources.
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Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office.
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Control Measure	BMP PE2 – Students, employees and faculty. With the support from ROTARACT, Aullido Verde and CEMA (student's organizations), materials and information were distributed among groups.
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Measurable Goal	Number of students, employees and faculty reached (4,000/year). The Committee and students from the ROTARACT, Aullido Verde and CEMA association will help to distribute materials and information.
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Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office.
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Control Measure	BMP PE3 – Modify webpage for the Stormwater Program to add Social Media tools and blog
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Measurable Goal	General public, students, employees and faculty. The site is part of the UPR-Arecibo webpage. The goal is to reach over 4,000 students and residents per year.
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Person or Department Responsible	UPR-Arecibo Office of Public Relations.
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Control Measure	BMP PE4 – Radio Program.
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Measurable Goal	General public, students, employees and faculty. The radio program approach was discontinued. The university instead created UPRA-Web-radio. They air PSAs related to stormwater information.
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Person or Department Responsible	UPR-Arecibo Communications Department
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Control Measure	BMP PE5 – Incorporate university and student organizations into the program.
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Measurable Goal	Around 10 organizations were involved in different activities.
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Person or Department Responsible	Dean of Student Affairs.
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Control Measure	BMP PE6 – Evaluate the possibility of including the stormwater pollution control to exiting environmental courses offered at UPR-Arecibo.
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Measurable Goal	Students. Currently several courses at UPRA include the topic of stormwater pollution control.
Person or Department Responsible	Dean of Academic Affairs.

9.2 Public Involvement

9.2.1 Public Involvement Management Program

The SWMP activities implemented under 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. The University shall create new tasks as necessary, implement and modify any existing public involvement element to continue reducing to the MEP the discharge of pollutants into the MS4.

9.2.2 Targeted Controls and Associated Measurable Goals

Control Measure	BMP PI1 – Review SWMP by the university community
Measurable Goal	General Public, Students, Employees and Faculty. The SWMP will be available for comments. To reach over 75% of university community.
Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office.
Control Measure	BMP PI2 – Create events for students, employees and faculty to clean-up the campus.
Measurable Goal	Through the Campus website the general public will be invited. The activities will be coordinated at the Annual Fair for a Better Quality of Living.
Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office and Dean of Student Affairs.

Control Measure	BMP PI3 – Involve student’s organizations such as Student Council and the Departments of Social Sciences, Natural Sciences, and Engineering.
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Measurable Goal	Using social media to reach out the community and 100% of student’s organizations. Through the Campus website the general public will be invited. The activities will be part of the celebration of Earth Day.
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Person or Department Responsible	Office of Public Relations and the Environmental Protection, Occupational Health and Safety Office.
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Control Measure	BMP PI4 – Respond to verbal inquiries, comments and concerns about illicit disposal of wastes, and/or request of information.
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Measurable Goal	Respond 100% of the verbal inquiries.
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Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office and Dean of Administrative Affairs.
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Control Measure	BMP PI5 – Make the SWMP/NOI available to students and faculty.
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Measurable Goal	To reach out 100% of the university community using existing media outlets including social networks.
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Person or Department Responsible	Information Technologies Office.
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9.3 Illicit Discharge Detection and Elimination (IDDE)

9.3.1 IDDE Management Program

Permit Requirement

The UPR-Arecibo will develop, implement and enforce a program to detect and eliminate illicit discharges or flows. The management program must include a storm sewer system map showing the location of all outfalls (the point where a waste stream discharges into a body of water) and the names of all waters that receive these discharges. The map also will show the location of catch basins, manholes and pipes within the system, physical interconnections with other regulated MS4s and private property connections. Our program plan must contain procedures to identify and target priority areas and locate and remove illicit discharges.

Best Management Practices (BMP)

The UPR-Arecibo will use a combination of summer interns and hired vendors to identify, map and describe all stormwater outfalls. We review construction design plans to locate these features, and when plans are not available, we physically follow the pipe to its outfall. During our outfall identification and location process, we survey them for dry-weather discharges to potentially identify illicit connections to our system. We sample them for temperature, pH, conductivity, and bacterial contamination, as required by the general permit. Our investigation sometimes requires us to trace flows up the pipe to identify where it's coming from, using smoke or dye testing or video as needed. The UPR-Arecibo will identify and notify all responsible parties for any illicit discharge and request immediate elimination of improper disposal practices in accordance with the University Interpretative Letter.

The SWMP activities implemented under MCM 3 will focus on 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. Activities planned under the Illicit Discharge Detection and Elimination (IDDE) portion of the SWMP will be directed toward all citizens, industrial and commercial sectors of the community.

The general permit requires that to the extent allowable under state law, we must prohibit and enforce unauthorized non-stormwater discharges into the system.

Targeted Controls and Associated Measurable Goals

Control Measure	BMP IDDE1 – Encourage cleaning of Campus Parking Area.
Measurable Goal	Before the beginning of every Hurricane Season, the administration conduct inspections, clean-ups all storm drains at parking areas.
Person or Department Responsible	Infrastructure Resources Division and Dean of Administrative Affairs.

Control Measure	BMP IDDE2 – Complete the layout of the storm water system.
Measurable Goal	The map, although completed, will require an update. The administration will contract the activity in the first semester of 2017.
Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office.

Control Measure	BMP IDDE3 – Issuance of an Interpretative Letter addressing illegal discharges from washing vehicles, cafeteria floors, cooling tower overflows, floor drains, draining of sinks, etc.
Measurable Goal	The letters were issued during the previous permit cycle, they were re-issued in 2017.
Person or Department Responsible Responsible	UPR-Arecibo Chancellor Office.

Control Measure	BMP IDDE4 – For suspect areas identified during the visual inspections the UPR-Arecibo will implement one or more of the following testing methodologies: connectivity tests, dye testing, smoke surveys and/or video surveys.
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Measurable Goal	Complete 100% of investigations during the year.
Person or Department Responsible	Infrastructure Resources Division and Dean of Administrative Affairs.
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Control Measure	BMP IDDE5 – Removal of source illegal discharge.
Measurable Goal	Removal of 100% of illegal discharges identified during the inspections.
Person or Department Responsible	Infrastructure Resources Division and Dean of Administrative Affairs.
<hr/>	
Control Measure	BMP IDDE6 – The University will train employees in the detection, prevention, and identification of illegal discharges.
Measurable Goal	100% of all employees training during the permit cycle. Trainings offered twice a year.
Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office.
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Control Measure	BMP IDDE7 – Notify students, faculty and employees of the hazards and costs of illegal discharges and improve disposal of waste through seminars and/or published and distributed information.
Measurable Goal	To reach out 100% of the student community using existing media outlets and social media networks.
Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office and Office of Public Relations.
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9.3.2 Sanitary Sewer Overflows (SSO)

Discharges from SSOs to the MS4 are prohibited and any such discharge violates the permit and remains a violation until eliminated. Upon detection, the permittee shall notify the Puerto Rico Aqueduct and Sewer Authority (PRASA) and any pertinent agency to collaborate and eliminate SSOs as quickly as possible and shall take temporary mitigation measures to minimize the discharge of pollutants to and from its MS4 until elimination is completed. In addition, the University shall also coordinate and implement with PRASA and any pertinent agency cleanup measures to minimize impacts to human health and the environment associated with the SSO.

Upon becoming aware of a SSO discharge to the MS4, the University shall provide oral notice to the Municipality of Arecibo, the EPA and PRASA within 24 hours. Additionally, the University shall provide written notice to EPA and PRASA within five (5) days of becoming aware of the SSO occurrence and shall include the information in the updated inventory. The University shall maintain an updated inventory of SSO's in the SWMP and include the updated list in the annual report.

Table 5. EPA Sanitary Sewer Overflow Response Flowchart for Puerto Rico.

Sanitary Sewer Overflow (SSO) Process Flowchart

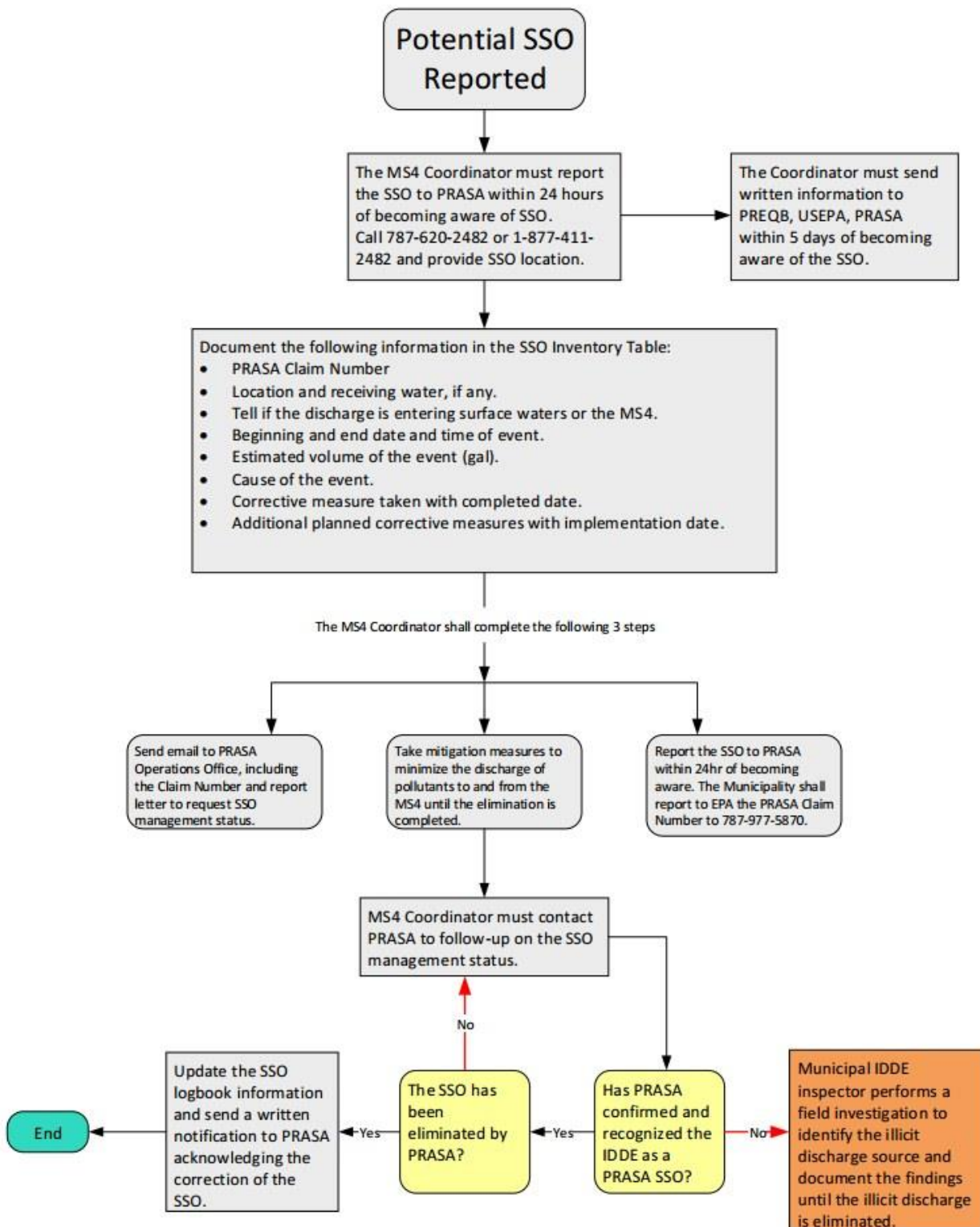


Table 6. Sanitary Sewer Overflow Inventory Table

[illegible]

9.3.3 Storm Sewer System Map Updates

As a Non-Conventional MS4, the University of Puerto Rico – Arecibo already developed a storm sewer system map that included the following data:

- University separate storm sewer system with material and size.
- Outfalls and receiving waters.
- Pipes
- Open channel conveyances (swales, ditches, etc.)
- Catch basins
- Manholes
- Flood control pump stations
- Interconnections with other MS4s
- University owned stormwater treatment structures (detention and retention basins, infiltration systems, bio-retention areas, water quality swales, gross particle separators, oil/water separators, any other proprietary system).
- Catchment delineations. For purpose of this permit, a catchment is the area that drains to an individual outfall or interconnection.
- Waterbodies identified by name and indication of all use impairments as identified in the Puerto Rico most current 303(d) list.
- Public drinking water sources
- University sanitary sewer system, if applicable.

This map needs update, and the process will be completed during the first semester of 2017. This tool will be more detailed than the map that was required by the 2006 Small MS4 General Permit. Every new section or modification to the storm sewer system will be included or added as an attachment to the current map to keep it up to date. When sections are added by new constructions or re-development projects, a detailed plan, blueprint or drawing must be included.

9.3.4 Outfall Inventory

The map prepared by the University included an inventory of all existing inlets, outfalls and/or discharge points within the main campus. Since the issuing of the 2006, no major modifications have been added to the infrastructure requiring the adding of outfalls, inlets or any other structure that may present impacts to the storm water discharges produced by the campus.

In 2017, the University will develop a new outfall and interconnection inventory program that establishes the SOP's to identify each outfall and interconnection discharging from the MS4, records its location and condition, and provides a framework for tracking inspections, screenings and other activities under the permittee's IDDE program. The outfall inventory will be completed no later than one (1) year from the authorization under the 2016 GP and shall include the inventory in each annual report. The inventory will be updated annually to include data collected in connection with the dry weather screening.

9.3.5 Employee Training

Employees which duties are directly or indirectly involved with the MS4 GP shall receive at least one training per year and employees that are directly involved with the implementation of the MS4 program may receive additional training seminars and refreshers. **(Appendix H)** Illicit discharge/Outfall SOP if available

Employees that shall receive training are but not limited to:

- MS4 Coordinators
- Public Works
- University inspectors
- University Police
- Firefighters and Emergency Response Team
- Administrative workers and secretaries that manage record keeping documents and route calls and cases related to the IDDE program.

Training topics that shall be covered include the following but are not limited to:

- General requirements of the MS4 program.
- General requirements of the IDDE program.
- SOP's on how to identify and eliminate illicit discharges and SSO's.
- Construction site permitting and plan review.
- Construction site inspection and enforcement SOP's.
- New development and redevelopment program requirements.
- Municipal operations and maintenance program SOP's.
- Good housekeeping and pollution prevention BMP's at University facilities.
- Record keeping and reporting requirements for the MS4 program.

9.3.6 IDDE Program Indicators

As Part 2.4.4.10, the UPR-Arecibo is required to develop and implement a plan to detect and eliminate illicit discharges to its MS4, including development of a storm sewer outfall map showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls. The UPR-Arecibo's plan should also provide effective mechanisms to prohibit illicit discharges into its MS4. This Minimum Control Measure also requires an education and outreach component that is addressed under the Public Education Minimum Control Measure. The potential for illicit discharges remains with illegal connections that are often the result of failing sanitary systems entering the Campus MS4. The indicator to document the program success is to identify and eliminate 100% of the discharges. Historically, the UPR-A has not recorded illegal discharges within the Campus infrastructure.

Construction Site Stormwater Runoff Control

9.3.7 Construction Site Stormwater Management Program

Permit Requirement

The UPR-Arecibo will implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. The Plan will include disturbances less than one acre if they are part of a larger common plan. At a minimum, the program must be consistent with the requirements of the PREQB general permit for stormwater discharge associated with construction activity.

Best Management Practices (BMP)

To fulfill goals outlined in our Stormwater Management Program Plan (SWMP), all contractors must submit copies of their Stormwater Pollution Prevention Plan (SWPPP) available thru the USEPA website. Correct and complete use of these templates will help meet the requirements of the EPA and EQB construction general permit.

9.3.8 Targeted Controls and Associated Measurable Goals

Control Measure

BMP CONS1 – Develop an information letter with a list of requirements for contractors working at the UPR-A Campus

requesting compliance with the NPDES permit for construction activities and with the "Erosion and Sedimentation Control" Regulation of the Environmental Quality Board. Both of these regulations include BMP's for erosion and sediment control on the construction site prior to beginning construction. This requirement will be for construction project covering one or more acres, as well as sites less than 1 acre that are a part of a larger development.

Measurable Goal	All contractors retained by the UPR-Arecibo will receive a copy of the information letter and will sign upon receipt.
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Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office.
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Control Measure	BMP CONS2 – Implementation and Adoption of an Interpretative letter to avoid improper disposal of construction materials like: building materials, concrete truck washout, chemicals, litter and sanitary waste.
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Measurable Goal	The University Administration will implement and adopt the Interpretative Letter as part of their operational activities. The letter was issued as part of the existing permit. An updated letter was issued in 2017 during the first year of the permit.
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Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office, Infrastructure Resources Division and Dean of Administrative Affairs.
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Control Measure	BMP CONS3 – Enforcement actions on those who violate the UPR-Arecibo Requirements.
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Measurable Goal	The University Administration will enforce 100% of the actions on those who violate the UPR-Arecibo requirements on stormwater pollution abatement during construction activities.
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Person or Department Responsible	Chancellor and Dean of Administrative Affairs.
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Control Measure	BMP CONS4 – The University staff will review the SWPPPs and CES Plans prepared by contractors during construction activities at the premises.
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Measurable Goal	100% of SWPPPs and CES Plans will be reviewed by university staffers according to university policy.
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Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office.
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Control Measure	BMP CONS5 – The UPRA will prepare a site development strategic plan called the “Marco de Desarrollo Físico 2006-2014”. The document will be reviewed to determine if non-structural BMPS such as the protection of sensitive Areas (i.e.: surface water bodies, forest), minimization of impervious area, and minimization of soils and vegetation disturbances can be incorporated in the Plan.
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Measurable Goal	The inspection of 100% of the protections to verify compliance with university policy.
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Person or Department Responsible	UPR-A Office of Planning and Institutional Research.
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9.3.9 Employee Training

Permit Requirements

The UPR-Arecibo will identify all operations that have a point source or the potential for a point source discharge of stormwater to the Campus MS4. From this, the administration will develop and implement a program to reduce pollutant runoff, including inspection procedures and schedules, and to develop and maintain an employee-training program for good housekeeping and pollution prevention, especially on those related to construction activities.

Best Management Practices (BMP)

We have identified existing programs that met the requirements of the general permit, and reviewed various methods to improve pollution prevention. Proposed programs include more frequent sweeping, and better inventory and inspection schedules of stormwater features, including basins, swales and eroding road shoulders.

(Appendix I) Construction SOP if available

9.3.10 Construction Site Inventory

The Permittee will maintain an inventory of all proposed construction sites within the Campus. Due to the small size of the campus, the construction activities are very limited.

9.4 Stormwater Management in New Development and Redevelopment

9.4.1 New Development and Redevelopment Management Program

The action of developing a site, can result in replacing existing permeable areas with impervious surfaces, such as buildings, parking lots, and sidewalks. Increasing impervious surfaces have the effect of increasing stormwater runoff and consequently can increase the potential of carrying pollutants into surface waters if no compensation or mitigation measures are implemented. Green Infrastructure is an approach to water management that protects, restores, and mimics the natural water cycle and includes techniques that can be implemented to mitigate or compensate for increased impervious surfaces. Green Infrastructure techniques include increasing infiltration with onsite measures, such as vegetated swales, increasing landscape to paved area ratios, stormwater planter boxes, vegetated curb extensions, and using pervious surfaces for parking lots and walkways.

As a Non-Conventional MS4s, the UPR-Arecibo does not need to meet the requirements of Section 2.4.6.5 to perform compliance inspections. Instead the UPR-Arecibo will focus on maintenance to its stormwater controls. The UPR-Arecibo will evaluate the inclusion of green infrastructure practices in new development and redevelopment at their facilities. Areas disturbed during construction activities will be covered with sod and other materials to avoid sediments and pollutants to reach the storm drain system. The UPR-Arecibo will evaluate opportunities to reduce the amount of impervious cover on parking areas and walkways. The results from these activities will be included in the annual report to the USEPA-Caribbean Environmental Protection Division.

The UPR-Arecibo has evaluated the permit requirements for the six MCMs as required in the MS4 permit. Based on that review, the University has selected BMPs for the new development and redevelopment section that the University believes will accomplish the goal of reducing pollution from stormwater runoff to the maximum extent practicable. Given the unique nature of our academic campus, the following program elements represent the two greatest storm water pollution concerns at the University of Puerto Rico - Arecibo:

Water Quality:

- Total Suspended Solids - sediment from construction activities and eroding slopes
- Floatables – leaves, litter, and other debris in gutters and landscaping
- Oil & grease – from parking lots, material handling, spills and leaks, and illegal dumping
- Total Organic Matter (leaves, grass clippings, etc.)
- Nitrogen and Phosphorus (fertilizer, pet waste, etc.)
- Water Quantity: total volume of discharge – a function of the number of paved surfaces directly connected to storm drain inlets (The EPA has taken the view that water quantity and water quality are directly related, therefore measuring quantity is an indicator of quality. Therefore, measures taken to decrease quantity are also correlated to improving quality).

Currently, the UPR-Arecibo controls runoff on open areas by maintaining green spaces and covering the areas impacted during construction and repair activities within the campus.

Permit Requirement

The UPR-Arecibo will develop, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale that discharge

into the MS4. The program must ensure that controls are in place to prevent or minimize water quality impacts.

Best Management Practices (BMP)

Currently, all new projects planned by us are designed in accordance with the Puerto Rico 2011 Construction Building Code, which provides guidance on the design, construction and maintenance of stormwater management systems. At a minimum, stormwater management systems for new projects are designed to realize the maximum sediment retention possible. For rehabilitation and reconstruction projects, we strive to provide the maximum water quality treatment possible.

We also strive to improve our maintenance of stormwater systems, including regular cleaning of detention basins and swirl-chamber units.

9.4.2 Targeted Controls and Associated Measurable Goals

Control Measure	BMP POST1 – Sanitary Sewer Overflow Notification
Measurable Goal	Notify the Puerto Rico Sewer to address 100% SSOs
Person or Department Responsible	UPR-A Infrastructure Resources Division and Dean of Administrative Affairs.

9.5 Pollution Prevention and Good Housekeeping for Municipal Operations

9.5.1 Pollution Prevention and Good Housekeeping Management Program

Permit Requirements

The UPR-Arecibo will identify all operations that have a point source or the potential for a point source discharge of stormwater to an MS4 or a body of water. From this, we must develop and implement a program to reduce pollutant runoff, including inspection procedures and schedules, and to develop and maintain an employee-training program for good housekeeping and pollution prevention.

Best Management Practices (BMP)

We have identified existing programs that met the requirements of the general permit, and reviewed various methods to improve pollution prevention. Proposed programs include more frequent sweeping, and better inventory and inspection schedules of stormwater features, including basins, swales and eroding road shoulders.

9.5.2 Targeted Controls and Associated Measurable Goals

Control Measure	BMP PP1 – Develop training for staff in charge of maintenance activities.
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Measurable Goal	The trainings are offered according to the space and resources availability. This activity will continue during the next cycle. Frequency will depend on funds allocated by the administration.
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Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office.
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Control Measure	BMP PP2 – Development of a Good Housekeeping Program
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Measurable Goal	Employees. Brochures and trainings have been offered and will continue during the next cycle. This activity will continue during the next cycle depending on funds allocated by the administration.
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Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office.
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Control Measure	BMP PP3 – Routine Inspections
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Measurable Goal	Employees. Full area inspections will be conducted annually. The activity will continue during the next permit cycle.
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Person or Department Responsible	Environmental Protection, Occupational Health and Safety Office and Infrastructure Resources Division.
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Control Measure	BMP PP4 – Removal of sediments accumulated in the concrete channel around the Chemical and Hazardous Storage Room.
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Measurable Goal	Reach 100% Employees. This is a regular maintenance activity.
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Person or Department Responsible	UPR-A Infrastructure Resources Division.
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Control Measure	BMP PP5 – Develop a storm drain maintenance and cleaning program.
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Measurable Goal	There are no issues with illegal discharges but roots growing in the pipelines. A new approach will be selected by the administration to clean 100% of the inlets and discharge areas.
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Person or Department Responsible	UPR-A Dean of Administrative Affairs and Infrastructure Resources Division.
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Control Measure	BMP PP6 – Continue using the waste disposal services to collect floatables and other waste.
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Measurable Goal	The collection of all wastes produced by the university including floatables and other waste.
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Person or Department Responsible	UPR-A Infrastructure Resources Division.
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9.5.3 Stormwater Pollution Prevention Plans

Due to size of the Campus and the limited activities related to waste handling activities, the no existence of maintenance garages, public work yards, and transfer stations where pollutants may be exposed to the elements, there is no need for a SWPPP. The SWMP and the interpretative letters will cover the need for such document. However, all contractors whose construction projects exceed an acre in length/size are required to present a Storm Water Pollution Prevention Plan to avoid any pollutants to reach the Campus MS4 system.

(Appendix K) SWPPP plans when available.

9.5.4 Employee Training

The University will offer trainings annually (when funds and resources are available) to all employees whose primary job duties are related to implementing the operation and maintenance programs. Training topics for Public Employees will include “General Good Housekeeping and Pollution Prevention at Municipal Facilities”, “MS4 maintenance including catch basin cleaning procedures”, “Integrated Pest Management and proper pesticide/herbicide application”, “Vehicle/equipment maintenance procedures”, “vehicle/equipment washing procedures” and “MS4 documentation requirements. The UPR-A is considering the development of a Standard Operating Procedure to address Good Housekeeping Activities. Once completed, the document will be included in the SWMP for compliance.

(Appendix L) Good housekeeping SOP if available

10 Program Evaluation

10.1 Annual Compliance Evaluation

The Stormwater Advisory Management Team (SWAMT) will continue to meet on an annual basis in order to review the SWMP and evaluate the implementation status of the SWMP components as well as the effectiveness of each component or combination of components. The University, in consideration of any received public comment, will determine how the SWMP needs to be revised, if at all. The University will submit an annual report to the USEPA Caribbean Environmental Protection Division by August 1 of each year of the Permit term for the preceding period of July 1 through June 30.

10.2 BMP Modifications

Any modifications to an approved stormwater management plan or BMP shall be allowed only after review and written approval by the UPR-Arecibo MS4 Coordinator. The Coordinator shall have 60 calendar days to respond in writing either approving or disapproving such request. The Coordinator may require that an approved stormwater management plan be amended, within a time prescribed by the Coordinator, to address any deficiencies noted during inspection. The UPR-Arecibo MS4 Coordinator shall require the submission of a construction record drawing for permanent stormwater management facilities once construction is completed. The UPR-Arecibo MS4 Coordinator may elect not to require construction record drawings for stormwater management facilities for which recorded maintenance agreements are not required.

11 Appendix

11.1 Appendix A

Notice of Intent



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
CITY VIEW PLAZA II, SUITE 7000
GUAYNABO, PUERTO RICO 00968-8069

0 2 2 2 1 7

Dr. Otilio González Cortés
Chancellor
University of Puerto Rico
Arecibo Campus
Call Box 4010
Arecibo, Puerto Rico 00614

Re: Notice of Coverage under the National Pollutant Discharge Elimination System
Small Municipal Separate Storm Sewer System General Permit
Permit Number: **PRR040005**

Dear Dr. González:

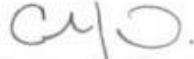
This letter acknowledges that the University of Puerto Rico – Arecibo Campus (UPR-Arecibo) has submitted a complete Notice of Intent (NOI) document to be covered under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (Small MS4 GP) in urbanized areas (PRR040000) in Puerto Rico. Coverage under this general permit began at the conclusion of the UPR-Arecibo's thirty (30) day waiting period, which is **January 20, 2017**.

The eligibility for coverage under the Small MS4 GP is based on the validity of the certification you provided on the NOI. Your signature certifies that you have read, understood and are implementing all of the applicable requirements of the Small MS GP. An important aspect of this certification requires that you correctly determine whether you are eligible for coverage under this Small MS4 GP.

In addition, the Small MS4 General Permit requires existing permittees to revise and update the current municipal Stormwater Management Program (SWMP) for the UPR-Arecibo and begin implementing it. The modified SWMP must be submitted to the undersigned attention, one (1) year from the date of authorization of coverage under this general permit, by **January 20, 2018**. The Small MS GP outlines important measurable goals, storm sewer system mapping, detection and addressing non-storm water discharges, inspections and record keeping requirements, among others, if not already accomplished. An electronic copy of the Small MS4 GP and additional guidance materials can be viewed and downloaded at <https://www.epa.gov/region02/water/npdes/permits/index.html>.

If you have questions regarding the stormwater program or your responsibilities under the Small MS4 GP, please call Sergio Bosques at (787) 977-5838 or via email at bosques.sergio@epa.gov, or Yolianne Maclay at (787) 977-5849 or via email at maclay.yolianne@epa.gov.

Sincerely,



Carmen R. Guerrero-Pérez
Director
Caribbean Environmental Protection
Division

cc: Ms. Elaine Y. Santiago, Environmental, Health and Occupational Safety Specialist,
UPR-Arecibo (via email)
Angel Meléndez, EQB, Water Quality Area, Acting Director (via email)

September 30, 2016

Eng. Sergio Bosques
Regional Storm Water Coordinator
Caribbean Environmental Protection Division
City View Plaza II – Suite 7000
#48 Rd. 165 km 1.2
Guaynabo, PR 00968-8069

2016 SEP 29 PM 4: 06
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UNIVERSITY OF PUERTO RICO
OFFICE OF THE CHANCELLOR

NOTICE OF INTENT (NOI) - UNIVERSITY OF PUERTO RICO AT ARECIBO
FOR STORM WATER DISCHARGES FROM SMALL MS4s IN URBANIZED
AREAS



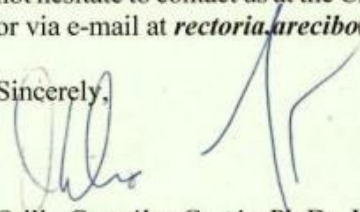
As part of the provisions of the Clean Water Act, Section 402 (p), requires that storm water discharges, associated with municipal separate storm sewer system (MS4s) in urbanized areas, to waters of the US must be authorized by a National Pollutant Discharge Elimination System (NPDES) permit.

Office of the
Chancellor

In order to comply with this requirement, we are submitting our Notice of Intent for the NPDES Permit no. PRR040005. The updated SWMP document will be modified in the next 6 months as required in Section 1.11 of the 2016 signed permit, and pursuant to Title 40, Part 122.34 Subpart B, or Permit Application and Special NPDES Program Requirements.

The University of Puerto Rico at Arecibo has the intention of comply with the Permit's provisions and EPA requirements. In you need additional information, do not hesitate to contact us at the Chancellor's Office at 787-815-0000 extension 1000 or via e-mail at rectoria.arecibo@upr.edu

Sincerely,


Otilio González Cortés, Ph.D., J.D.
Chancellor

ess/ntv

Enclosure: Notice of Intent

"EEO Employer"

PO Box 4010
Arecibo PR, 00614-4010
(787) 815-0000
Ext. 1000
(787) 880-2245 Fax

UNIVERSITY OF PUERTO RICO AT ARECIBO

NOTICE OF INTENT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PHASE II, REGULATED
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4's)

UNIVERSITY OF PUERTO RICO AT ARECIBO

EPA REGION 2 PUERTO RICO

PREPARED BY
ECOSTAHLIA CONSULTORES AMBIENTALES
SAN JUAN, PUERTO RICO

United States Environmental Protection Agency
National Pollutant Discharge Elimination System
Notice of Intent (NOI) for coverage under the Small Municipal Separate
Storm Sewer System (MS4) General Permit (PRR040059) for Puerto Rico

Part A. General Information

1. Name of Municipality or Organization: UNIVERSITY OF PUERTO RICO AT ARECIBO
2. Type: ☐ Federal ☒ State ☐ Municipality ☐ Other: _____
3. Existing Permittee: ☒ Yes ☐ No If yes, provide EPA NPDES Permit Number: PRR040005
4. Location Address:
 - a. Street: CARR. PR #653 KM. 0.8 R-129
BO. HATO ABAJO, SECTOR LAS DUNAS
 - b. City: ARECIBO State: PR Zip Code: 00614
5. Mailing Address:
 - a. Street: PO BOX 4010
 - b. City: ARECIBO State: PR Zip Code: 0014-4010
6. Telephone Number: (787)815-0000 EXT 1000 Fax: (787) 880-2245
7. E-mail: RECTORIA.ARECIBO@UPR.EDU
8. Standard Industrial Classification (SIC) Code (see instructions for common codes): 8221
9. Latitude: (use the format provided.) Longitude: (use the format provided.)
2.2.4.2 Approximate center of the regulated portion of the MS4.
- ° - ' " N (degrees, minutes, seconds) - ° - ' " W (degrees, minutes, seconds)

Or

18° 28' 11" N (degrees, minutes, seconds)

66° 44' 30' ° W (degrees, minutes, seconds)

Part B. Primary MS4 Program Manager Contact Information

1. Name: ELAINE Y. SANTIAGO SINDO
2. Position Title: ENVIRONMENTAL, HEALTH AND OCCUPATIONAL SAFETY SPECIALIST
3. Stormwater Management Program (SWMP) Location (web address or physical location):
http://www.upra.edu/pmae/programa.html
4. Mailing Address:
 - a. Street: P.O. BOX 4010
 - b. City: ARECIBO State: PR Zip Code: 00614

5. Telephone Number: 787-815-0000 EXT 3630

6. E-mail: ELAINE.SANTIAGO@UPR.EDU

Part C. Eligibility Determination

1. Endangered Species Act (ESA) determination complete? ☒ Yes ☐ No
- a. Eligibility Criteria (check all that apply): ☐ A ☐ B ☐ C ☐ D ☒ E ☐ F
2. National Historic Preservation Act (NHPA) determination complete? ☒ Yes ☐ No
- a. Eligibility Criteria (check all that apply): ☐ A ☒ B ☐ C ☐ D

Part D. Map/Boundaries

1. MS4/Organization Description of regulated boundaries (narrative):
- The UPRA Campus is located at the PR-653 Road, Km. 0.8, Las Dunas Sector, Hato Abajo Ward in Arecibo, Puerto Rico. The UPRA Campus is located at the approximate coordinates of Latitude 18° 28' 11" and Longitude 66° 44' 30". The UPRA Campus property covers an area of approximately 50 "cuerdas" on which several buildings covering a total area of approximately 340,000 square-feet (sf) are located. The UPRA Campus' facilities include 78 class rooms, 18 laboratories for different educational subjects, parking areas, several sport facilities and associated infrastructure.

The UPRA Campus is located in the northern part of Puerto Rico in an area of significant agricultural, industrial and economic development. The UPRA Campus is a superior education academic institution, designed to principally serve the northern central Region of the Island. The University offers 34 academic programs with Bachelor and associated degrees and transfer programs. The main Departments and programs offered by the UPRA Campus include:

- Business Administration
- Biology
- Social Sciences
- Education
- Human sciences
- Physics
- Engineering programs transfers
- Computer Sciences
- Mathematics
- Communications
- Nursery
- Chemistry
- Office Systems; and

The UPRA Campus has an average annual student enrollment of approximately 4,000, faculty of approximately 260 faculty members and approximately 540 employees.

2. Location Map/Boundaries. A location map must be attached showing the pertinent city, town, wards, or boundaries, the boundaries of the Small MS4, including surface water body(s), and the "urbanized area" (UA) when applicable.
- Is map attached? ☒ Yes ☐ No

Part E. MS4 Infrastructure (if covered under the 2006 general permit)

1. Estimated Percent of Outfall Map Complete? (Section 4.2.3 of 2006 general permit): 100 %

NOTE: The Administration will contract a new system map in the first semester on 2017.

- a. If 100% of 2006 requirements are not met, enter an estimated date of completion: 12/30/2017
(MM/DD/YYYY)

- b. Web address where MS4 map is published:
<http://www.upra.edu/pmae/pdf/Fig%203%20Storm%20Sewer.pdf>

Part F. Bylaw/Ordinance Development (if covered under the 2006 general permit)

1. Illicit Discharge Detection and Elimination (IDDE) authority adopted? ☒ Yes ☐ No
a. Effective Date or Estimated Date of Adoption: 10/30/2007
(MM/DD/YYYY)
2. Construction/Erosion and Sediment Control authority adopted? ☒ Yes ☐ No
a. Effective Date or Estimated Date of Adoption: 10/30/2008
(MM/DD/YYYY)
3. Post-Construction Stormwater Management adopted? ☒ Yes ☐ No
a. Effective Date or Estimated Date of Adoption: 10/30/2008
(MM/DD/YYYY)

Part G. Receiving Waters

List the names of all surface waterbody segments to which your MS4 discharges. For each waterbody segment, please report the number of outfalls discharging into it and, if applicable, any impairments. You may attach additional information.

Waterbody Segment that receives flow from the MS4	Number of Outfalls into receiving waterbody segment	Has any monitoring been performed to outfalls? (Yes/No)	List of Pollutant(s) causing impairment (if applicable)	List of TMDL Pollutant (s) (if any)
NONE	NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE	NONE

NONE	NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE	NONE

NOTE: The MS4 system from the UPRA discharges into the MS4 of the Municipality of Arecibo and the PRDOT. The discharges eventually reach the Atlantic Ocean and the Río Grande de Arecibo. However, it is unknown to the University the exact location of the outfalls and/or discharge points.

Part H. Summary of Stormwater Management Program (SWMP) under the 2006 Small MS4 General Permit

For every measurable goal and associated Best Management Practice (BMP) listed in the adopted program, provide the following information (You may include additional pages):

BMP Description or BMP ID (e.g. MCM-1)	Goal Achieved? (Yes/No)	Continued in next permit cycle? (Yes/No)	Who was the targeted audience? Explain reason for not achieving goal.	Modification(s) to goals or BMP for next permit cycle
MCM-1 Public Education & Outreach				
Collect brochures, fact sheets and other educational materials from the EPA and other agencies.	Yes	Yes	University students, employees and faculty. A series of 6 brochures were printed and distributed.	Some modifications to the existing documents. All 6 will be included in the campus website.
Distribution of information to students, employees and faculty.	Yes	Yes	Students, employees and faculty. With the support from ROTARACT and CEMA (student's organizations) materials and information was distributed among groups.	The University is expecting to continue with the BMP in the next cycle.
Modify webpage for the Stormwater Program.	Yes	Yes	General public, students, employees and faculty.	No major changes except for Social Media Cover.
Radio Program	Yes	Yes	General public, students, employees and faculty. The radio program approach was discontinued. The university instead created UPRA-Web-radio. They air PSAs related to storm-water information.	The efforts will continue in the next cycle.
Establish a library of educational materials.	No	No	General public, students, employees and faculty. It was difficult to implement due to lack of resources in general. This activity was discontinued.	Discontinued.
Incorporate university and student organizations into the program.	Yes	Yes	Around 10 organizations were involved in different activities.	The effort will continue in the next cycle.

Evaluate the possibility of including the storm water pollution control to exiting environmental courses offered at UPRA	Yes	Yes	Students. Currently several courses at UPRA include the topic of storm water pollution control.	The effort will continue in the next cycle.
MCM-2 Public Involvement & Participation				
Review SWMP by the university community	Yes	Yes	General Public, Students, Employees and Faculty. The SWMP is available at the university website.	The University will continue with the goal.
Create events for students, employees and faculty to clean-up the campus.	Yes	Yes	Through the Campus website the general public was invited. The activities were coordinated at the Annual Fair for a Better Quality of Living.	The University will continue with the goal.
Involve student's organizations such as Student Council and the Departments of Social Sciences, Natural Sciences, and Engineering.	Yes	Yes	Through the Campus website the general public was invited. The activities were coordinated as part of the celebration of Earth Day.	The UPRA will continue with the effort in the new cycle.
Respond to verbal inquiries, comments and concerns about illicit disposal of wastes, and/or request of information.	Yes	Yes	The University has and will continue to respond to inquiries and comments through the website.	The UPRA will continue with the effort in the new cycle.
Make the SWMP/NOI available to students and faculty.	Yes	Yes	Both documents are available at the website. The general public can comment and will get responses by email.	The UPRA will continue with the effort in the new cycle.

Part H. Summary of Stormwater Management Program (SWMP) under the 2006 Small MS4 General Permit

For every measurable goal and associated Best Management Practice (BMP) listed in the adopted program, provide the following information (You may include additional pages):

BMP Description or BMP ID (e.g. MCM-1)	Goal Achieved? (Yes/No)	Continued in next permit cycle? (Yes/No)	Who was the targeted audience? Explain reason for not achieving goal.	Modification(s) to goals or BMP for next permit cycle
MCM-3 Illicit Discharge Detection and Elimination Program				
Encourage cleaning of Campus Parking Area.	Yes	Yes	Before the beginning of every Hurricane Season, the administration conduct inspections, clean-ups all storm drains at parking areas.	None. The activity will continue during the next cycle.
Complete the layout of the storm water system.	Yes	Yes	The map, although completed, will require an update. The administration will contract the activity in the first semester of 2017.	None. The activity will continue during the next cycle.
Issuance of an Interpretative Letter addressing illegal discharges from washing vehicles, cafeteria floors, cooling tower overflows, floor drains, draining of sinks, etc.	Yes	Yes	The letters were issued during the previous permit cycle, but will be re-issued in 2017.	None
Enforcement action will be taken on those who violate the Policy in accordance to the University's policy enforcement code.	Yes	Yes	No illegal discharges have been identified.	The University will continue with the task in the next cycle.

Elimination or connection to the sanitary sewer system of sinks at the North Plaza de los Fundadores, at the Landscaping Storage Room, to the east of the South Wing Class Rooms, Graphics Art area and wash Waters from the Cafeteria area to the Sanitary system.	Yes	Yes	This task was completed	Discontinued in the next cycle.
Testing of floor drains at Machine Room to determine possible connection to storm sewer.	Yes	Yes	The system is connected to the sanitary sewer system. Other issues with overgrown roots clogging pipes need to be addressed by the administration.	This task was completed. No new tasks in the next cycle.
If floor drains are found to discharge into to the storm sewer, disconnect and connect to the sanitary sewer.	Yes	No	The system is connected to the sanitary sewer system. Other issues with overgrown roots clogging pipes needs to be addressed by the administration.	This task was completed. No new tasks in the next cycle.
Disconnection of cooling tower overflow to the storm sewer and connection to the sanitary sewer.	Yes	No	The AC tower was dismantled and a new system with a closed system was installed.	This task was completed. No new tasks in the next cycle.
Visual inspections of outfalls during dry weather.	Yes	Yes	Completed by a contractor. No illegal discharges were ID at the premises.	This activity will continue during the next cycle. Frequency will depend on funds allocated by the administration.
Removal of source illegal discharge.	Yes	Yes	Completed by a contractor. No illegal discharges were ID at the premises.	This activity will continue during the next cycle depending on funds allocated by the administration.

The University will train employees in the detection, prevention, and identification of illegal discharges.	Yes	Yes	The trainings are offered according to the space and resources availability.	This activity will continue during the next cycle. Frequency will depend on funds allocated by the administration.
Notify students, faculty and employees of the hazards and costs of illegal discharges and improve disposal of waste through seminars and/or published and distributed information.	Yes	Yes	The task was aimed at students, faculty and employees and will continue.	This activity will continue as part of the activities in the new cycle.

Part H. Summary of Stormwater Management Program (SWMP) under the 2006 Small MS4 General Permit

For every measurable goal and associated Best Management Practice (BMP) listed in the adopted program, provide the following information (You may include additional pages):

BMP Description or BMP ID (e.g. MCM-1)	Goal Achieved? (Yes/No)	Continued in next permit cycle? (Yes/No)	Who was the targeted audience? Explain reason for not achieving goal.	Modification(s) to goals or BMP for next permit cycle
MCM-4 Construction Site Storm Water Runoff Control				
Implementation and Adoption of an Interpretative letter for contractors to comply with the NPDES-MS4 permit, and the CES Plans.	Yes	Yes	Contractors. The task was completed. Enclosed copy of the Interpretative Letter.	To be modified as needed. Letter will be re-issued in 2017.
Implementation and Adoption of an Interpretative letter to avoid improper disposal of construction materials like: building materials, concrete truck washout, chemicals, litter and sanitary waste.	Yes	Yes	Contractors. The task was completed. Enclosed copy of the Interpretative Letter.	To be modified as needed. Letter will be re-issued in 2017.
Enforcement actions on those who violate the UPRA Requirements.	Yes	Yes	Contractors. No actions were needed.	The task will continue during the next cycle.
The University staff will review the SWPPPs prepared by contractors during construction activities at the premises.	Yes	Yes	Contractors. No actions were needed.	The task will continue during the next cycle.

MCM-5 Post Construction and Re-Development Storm Water Program				
The UPRA will prepare a site development strategic plan called the "Marco de Desarrollo Físico 2016-2024". The document will be reviewed to determine if non- structural BMPS such as the protection of sensitive Areas (i.e.: surface water bodies, forest), minimization of impervious area, and minimization of soils and vegetation disturbances can be incorporated in the Plan.	Yes	Yes	University Administration	In the next cycle, the new strategic plan will cover these requirements.
The UPRA will develop an Interpretative Letter to require the consideration of post-construction runoff for new developments and redevelopments.	Yes	Yes	Contractors. The task was completed. Enclosed copy of the Interpretative Letter.	To be modified as needed. Letter will be re-issued in 2017.
MCM-6 Pollution Prevention and Good Housekeeping				
Develop training for staff in charge of maintenance activities.	Yes	Yes	The trainings are offered according to the space and resources availability.	This activity will continue during the next cycle. Frequency depending on funds allocated by the
Development of a Good Housekeeping Program	Yes	Yes	Employees. Brochures and trainings have been offered and will continue during the next cycle.	This activity will continue during the next cycle depending on funds allocated by the administration.
Routine Inspections	Yes	Yes	Employees. Full area inspections are conducted twice a year.	This activity will continue during the next cycle.

Removal of sediments accumulated in the concrete channel around the Chemical and Hazardous Storage Room.	Yes	Yes	Employees. This is a regular maintenance activity.	This activity will continue during the next cycle.
Pavement of temporary parking located west of the Chemical and Hazardous Storage Room.	Yes	No	Activity Completed	The activity was completed.
Construction of a new containment area for the storage of used oil from the Cafeteria.	Yes	No	Activity Completed	The activity was completed.
Develop an SOP for maintaining all chemical materials paints and discarded paint containers stored in a covered area with a containment system.	No	Yes	The lack of technical resources and funding delayed this activity. It will be included in the next cycle.	This activity will be completed in the first semester of 2017.
Develop a storm drain maintenance and cleaning program.	No	No	There are no issues with illegal discharges but roots growing in the pipelines. A new approach will be selected by the administration.	A new activity will be planned according to the findings.
Continue using the waste disposal services to collect floatables and other waste.	Yes	Yes	University Campus	This services will continue during the new cycle.

Part I. 2016 Stormwater Management Program (SWMP) Summary

Public Education and Outreach (See Section 2.4.2 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1) Public Education and Outreach	Education Topic (Identify the issue your BMP is educating the public about.)	Outreach Method (Describe the method used to convey this topic, e.g. mailing, events, school, etc.)	Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., number mailing sent, people at event, class participation, etc.)
BMP-1 Storm Drain Stenciling Program	Non-Point Sources and Illegal Discharges	Storm Drains Stenciling	Number of storm water inlets painted and volunteers participating. The target is to have all drains marked on yearly basis.
BMP-2 Collect brochures, act sheets and other educational materials from the EPA and other agencies.	Non-Point Sources and Illegal Discharges	Email and Social Media. Engaging organizations like ROTARACT, CEMA and others.	Reproduce all 6 brochures and distribute the documents on mass email using the Campus email service.
BMP-3 Distribution of information to students, employees and faculty.	Illegal Discharges, Non-Point Sources and Erosion Control	Public Meetings, Lectures, emails.	Reach 100% on enrolled students using emails, meetings and lectures.
BMP-4 Modify webpage for the Storm Water Program.	Illegal Discharges and Non-Point Sources	Through the general outreach activities, the University encourages the use of the webpage to obtain information.	Number of visits to the page and downloads.
BMP-5 Radio Program	Illegal Discharges, Non-Point Sources and Erosion Control	Posting of educational clips and messages in Facebook, Twitter, Instagram and Snapchat.	Number of messages distributed, shared and viewed on a monthly basis.
BMP-6 Incorporate university and student organizations into the program.	Implementation of MS4 Permit in the UPRA Campus	Events, Fairs, Lectures, Events	Number of students enrolled and participating of the events.
BMP-7 Evaluate the possibility of including the storm water pollution control to exiting environmental courses offered at UPRA	Illegal Discharges, Non-Point Sources and Erosion Control	Continue with the effort of including the topics in the courses offered at the University.	Number of students enrolled and participating in the courses offered at campus are: BIOL 3919 – Water Microbiology BIOL 3920 – Water Microbiology Lab. BIOL 3733 – Environmental Microbiology BIOL 3734 – Environmental Microbiology Lab. BIOL 4045 – Environmental Law TEQU 4016 – Environmental Control TEQU 4018 – Pharmaceutical Industry Regulations

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)

Public Involvement and Participation (See Section 2.4.3 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1) Public Involvement and Participation	Program Description (Describe the program and how it will inspire public participation, e.g. special events, volunteer sampling and monitoring efforts, household hazardous waste recycling, etc.)	Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., participation, amount of sampling performed, waste collected, etc.)
BMP-1 Review SWMP by university community.	The UPRA Community will have their SWMP available in their webpage for comments and suggestions.	Number of students, employees and faculty members visiting the page to download and review the document.
BMP-2 Create events for students, employees and faculty to clean-up the campus.	The University propose the use of public meetings through the community as a mean to request their involvement in the efforts coordinated by the administration.	The number of volunteers and the total number of students, faculty members and employees participating in the events.
BMP-3 Involve student's organizations such as Student Council and the Departments of Social Sciences, Natural Sciences, and Engineering.	The university propose the use of focus groups through the community as a mean to request their involvement in the efforts coordinated by the administration. Also, the use of public meetings and local events.	The number of volunteers participating during the focus groups and the number of issues identified and fixed.
BMP-4 Respond to verbal inquiries, comments and concerns about illicit disposal of wastes, and/or request of information.	The University has and will continue responding to inquiries and comments through the campus' website.	The number of responses to inquiries and comments posted in the website.
BMP-5 Make the SWMP/NOI available to students and faculty.	Both documents will continue to be available at the website. The administration will issue comments and responses accordingly.	The number of responses to inquiries and comments posted in the website.

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)

Illicit Discharge Detection and Elimination (See Section 2.4.4 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1) Illegal Discharge Detection and Elimination	Program Description (Describe the program and how it will identify and remove illicit connections from the MS4, e.g. new regulations, investigation practices, removal of illicit connections, etc.)	Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of investigation performed, identified and removed illicit connections, etc.)
BMP-1 Encourage cleaning of Campus Parking Area.	The Campus Administration propose to continue with the annual inspections and cleanups of all storm drains at parking areas.	Complete the cleaning of 100% of all storm drains at parking areas.
BMP-2 Complete the layout of the storm water system.	The map, although completed, will require an update. The Campus administration will contract the work during the first semester of 2017.	Complete and update 100% of the system map by 06/30/2017.
BMP-3 Issuance of an Interpretative Letter addressing illegal discharges from washing vehicles, cafeteria floors, cooling tower overflows, floor drains, draining of sinks, etc.	The guidance letters were issued during the previous permit cycle, but will be re-issued in 2017.	The modification and re-issuance of the Interpretative Letter.
BMP-4 Enforcement action will be taken on those who violate the Policy in accordance to the University's policy enforcement code.	Although no violations have been detected, the administration will continue with the effort.	Number of actions taken.
BMP-5 Visual inspections of outfalls during dry weather.	Although no violations have been detected, the administration will continue with the effort.	Number of positive inspections and positive id. of leaking outfalls.

BMP-6 Removal of source illegal discharge.	Although no violations have been detected, the administration will continue with the effort.	Number of positive inspections and positive id. of illegal discharges.
BMP-7 The University will train employees in the detection, prevention, and identification of illegal discharges.	Although no violations have been detected, the administration will continue with the effort.	Number of employees with certified attendance.
BMP-8 Notify students, faculty and employees of the hazards and costs of illegal discharges and improve disposal of waste through seminars and/or published and distributed information.	The Campus administration propose the use of emails and PSAs on the website to reach all enrolled students, faculty members and employees.	Number of members of university community reached through existing systems.

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)

Construction Site Stormwater Runoff Control (See Section 2.4.5 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1) Construction Site Stormwater Runoff Control	Program Description (Describe the program and how it will help control stormwater runoff at construction sites, e.g. new regulations, construction practices, inspection protocols, etc.)	Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of inspections performed and sites actively regulated, etc.)
BMP-1 Implementation and Adoption of an Interpretative letter for contractors to comply with the NPDES-MS4 permit, and the CES Plans.	Personal and electronic distribution among contractors during contract signature process.	Number of actions taken by the Administration.
BMP-2 Implementation and Adoption of an Interpretative letter for contractors to avoid improper disposal of construction materials like: building materials, concrete truck washout, chemicals, litter and sanitary waste.	The existing Interpretative Letters offer contractors a general guidance to comply with the University responsibility to comply with environmental regulations. Inspections to contracted jobs.	Number of actions taken by the Administration.
BMP-3 Development of a SOP that include all the BMPs associated with construction activities.	The SOP will establish the proper guidance to the campus administration and all contractors hired to avoid unnecessary violations to the NPDES-MS4 Permit.	Positive inspections and lack of violations during construction activities.
BMP-4 The University staff will review the SWPPPs prepared by contractors during construction activities at the premises.	The staffers will review the documents for consistency with the NPDES-MS4 and EPA regulations and the Campus permit.	Number of documents complying with EPA regulations and the Campus permit.

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)

Post-Construction Stormwater Management in New Development and Redevelopment (See Section 2.4.6 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1) Post-Construction Stormwater Management in New Development and Redevelopment	Program Description (Describe the program and how it will control stormwater runoff from properties after they are developed, e.g. new regulations, practices, or resources for contractors to use Low Impact Development (LID), etc.)	Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of implemented practices, development of capacity building resources, etc.)
BMP-1 Develop and implement a SOP for Post-Construction Activities.	The SOP will establish the proper guidance to the campus administration and all contractors hired to avoid unnecessary violations to the NPDES-MS4 Permit.	Positive inspections and lack of violations during construction activities.
BMP-2 The UPRA will prepare a site development strategic plan called the "Marco de Desarrollo Físico 2016-2024". The document will be reviewed to determine if non- structural BMP'S such as the protection of sensitive Areas (i.e.: surface water bodies, forest), minimization of impervious area, and minimization of soils and vegetation disturbances can be incorporated in the Plan.	The Strategic Plan will incorporate guidance from EPA and the SOP to minimize the impact of pollution from stormwater.	Number of activities and practices adopted in the Strategic Plan.

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)

Good Housekeeping and Pollution Prevention in Municipal Operations (See Section 2.4.7 for detailed information of required BMPs):

BMP Description or BMP ID (e.g. MCM-1) Good Housekeeping and Pollution Prevention in Municipal Operations	Program Description (Describe the program and how it will mitigate stormwater runoff at municipal properties or through municipal activities, e.g. installation of structural stormwater controls on the municipal properties, new practices to reduce pollutant exposure to rain events, runoff management, trainings, etc.)	Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., structural BMPs installed, SOPs developed and implemented, etc.)
BMP-1 Trainings for staff in charge of maintenance activities.	The Campus Administration will provide trainings on BMPs for mechanics, green-areas workers, painters, electricians, and clerical employees on how to address simple issues identified in the daily tasks of the Campus Operations. The trainings will cover oil, paint and fuel spills, emergency response, good housekeeping, material storage, and record keeping.	The Administration will provide the employees with workshops/trainings every year addressing BMPs and their responsibility under the USEPA-NPDES MS4 Permit.
BMP-2 SOPs for Campus activities	The University will develop and implement the required Standard Operation Procedures for all the operations and maintenance activities conducted daily at Campus. The SOPs will cover all activities that may have an impact on the NPDES-MS4 permit including management of the chemical storage facility.	Number of inspections completed and certified in compliance with local ordinances and USEPA regulations.
BMP-3 Routine inspections.	The Administration will conduct inspections twice a year to certify compliance with the NPDES Permit.	Number of inspections completed and certified in compliance with USEPA regulations.
BMP-4 Removal of sediments accumulated in the concrete channel around the Chemical and Hazardous Materials Storage Room.	The staff will continue with this activity on a monthly basis.	Positive inspections on a monthly basis.

BMP-5 Develop a storm drain maintenance and cleaning program.	Although there are no issues with illegal discharges, there is a pervasive problem with root overgrow in the pipelines. This will be addressed to avoid problems with existing pipes.	Completion of the removal of the roots in the next 3 years.
BMP-6 Continue with the waste disposal services to collect floatables and other waste.	The Administration will continue with the service of waste collection to address the removal of floatables.	Number of pounds collected in the system.

Part J. Application Certification and Signature

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.

Signature of Chancellor/ Official: _____



Print Name of Chancellor/Official: Otilio González Cortés, Ph.D., J.D.

Title: Chancellor

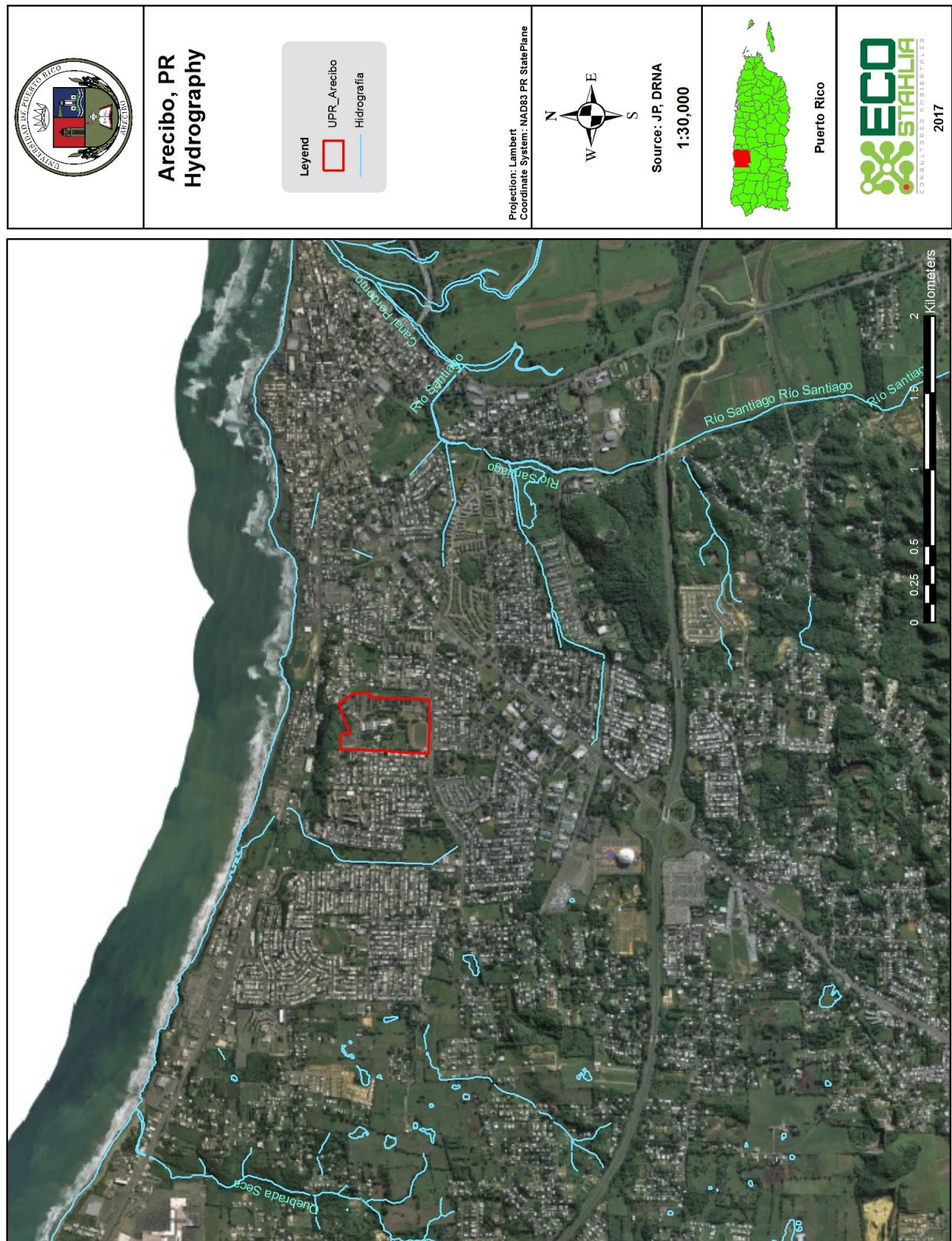
Date: September 28, 2016

11.2 Appendix B

CENSUS Urbanized Area Map

11.3 Appendix C

Hydrology Maps



11.4 Appendix D

USFWS Determination Letter



February 14, 2017

Mr. Edwin Muñiz, Esq.
Field Supervisor
Fish and Wildlife Service
PO Box 491
Boquerón, Puerto Rico 00622

RE: LISTED ENDANGERED AND CRITICAL SPECIES CONSULTATION
University of Puerto Rico - Arecibo
PO Box 4010
Arecibo, P.R. 0014-4010

Dear Mr. Muñiz:

On behalf of our client the University of Puerto Rico - Arecibo; EcoStahlia: Environmental Consultants is submitting to the Fish and Wildlife Service (FWS) Field Office a description of their Storm Water Management infrastructure to comply with Certification of Eligibility to demonstrate compliance under the Small Municipal Separate Storm Sewer Systems (MS4s) Program of the National Pollutant Discharge Elimination System (NPDES). Appendix A of the MS4s regulation requires conferring on the agency for potential endangered or critical species or habitats within the site that could be impacted by the facility operations.

The UPRA Campus is located at the PR-653 Road, Km. 0.8, Las Dunas Sector, Hato Abajo Ward in Arecibo, Puerto Rico. The UPRA Campus is located at the approximate coordinates of Latitude 18° 28' 11" and Longitude 66° 44' 30". The UPRA Campus property covers an area of approximately 50 "cuerdas" on which several buildings covering a total area of approximately 340,000 square-feet (sf) are located. The UPRA Campus' facilities include 78 class rooms, 18 laboratories for different educational subjects, parking areas, several sport facilities and associated infrastructure.

The UPRA Campus is located in the northern part of Puerto Rico in an area of significant agricultural, industrial and economic development. The UPRA Campus is a

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superior education academic institution, designed to principally serve the northern central Region of the Island. The University offers 34 academic programs with Bachelor and associated degrees and transfer programs. The main Departments and programs offered by the

UPRA Campus include:

- Business Administration
- Biology
- Social Sciences
- Education
- Human sciences
- Physics
- Engineering programs transfers
- Computer Sciences
- Mathematics
- Communications
- Nursery
- Chemistry
- Office Systems; and

The UPRA Campus has an average annual student enrollment of approximately 4,000, faculty of approximately 260 faculty members and approximately 540 employees.

According to the United States Fish and Wildlife Service Caribbean Endangered Species Map, twenty two (22) species may live in or near the municipality of Arecibo.

SCIENTIFIC NAME	COMMON NAME	COMMON NAME SPANISH	GROUP	STATUS	DISTRIBUTION
<i>Accipiter striatus venator</i>	Puerto Rican Sharp- Shinned Hawk	Falcon de Sierra	Bird	E	Rio Abajo State Forest
<i>Amazona vittata vittata</i>	Puerto Rican Parrot	Cotorra Puertorriqueña	Bird	E	Rio Abajo State Forest
<i>Auerodendron pauciflorum</i>	No Common Name	No Tiene Nombre Comun	Plant	E	Rio Abajo State Forest
<i>Buteo platypterus brunescens</i>	Puerto Rican Broad- winged Hawk	Guaragao de Bosque	Bird	E	Rio Abajo State Forest
<i>Calyptronoma rivalis</i>	No Common Name	Palma de Manaca	Plant	T	Rio Abajo State Forest

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Chelonia mydas	Green Sea Turtle	Peje Blanco	Reptile	T, CH	Coastal Zones
Cordia bellonis	No Common Name	No Tiene Nombre Comun	Plant	E	Rio Abajo State Forest
Cornutia obovata	No Common Name	Palo de Nigua	Plant	E	Rio Abajo State Forest, Near Arecibo Observatory
Daphnopsis hellerana	No Common Name	No Tiene Nombre Comun	Plant	E	Northern Limestone (Karst) Hills
Dermochelys coriacea	Leatherback Sea Turtle	Tinglar	Reptile	E, CH	Coastal Zones
Epicrates inornatus	Puerto Rican Boa	Boa Puertorriqueña	Reptile	E	Forested Volcanic and Limestone (Karst) Hills
Eretmochelys imbricata	Hawksbill Sea Turtle	Carey	Reptile	E, CH	Coastal Zones
Goetzea elegans	Beautiful Goetzea	Matabuey	Plant	E	Cambalache State Forest
Continues on Next Page					

SCIENTIFIC NAME	COMMON NAME	COMMON NAME SPANISH	GROUP	STATUS	DISTRIBUTION
Myrcia paganii	No Common Name	No Tiene Nombre Comun	Plant	E	Biafara Arrozal
Ottoschulzia rhodoxylon	No Common Name	Palo de Rosa	Plant	T	Cambalache State Forest, Sabana Hoyos
Pelecanus occidentalis	Brown Pelican	Pelicano Pardo	Bird	D, MP	Coastal Zones, Inland Waterbodies, No Nesting
Peltophryne lemur	Puerto Rican Crested Toad	Sapo Concho	Amphibian	T	Northern Karst Regions
Pleodendron macranthum	No Common Name	Chupacallos	Plant	E	Rio Abajo State Forest

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Schoepfia arenaria	No Common Name	No Tiene Nombre Comun	Plant	T	Rio Abajo State Forest
Solanum drymophilum	No Common Name	Erubia	Plant	E	Rio Abajo State Forest
Sterna dougallii	Roseate Tern	Palometa	Bird	T	Coastal Areas and Offshore Cays, Nesting
Tectaria estremerana	No Common Name	No Tiene Nombre Comun	Plant	E	Rio Abajo State Forest, Near Arecibo Observatory
Trichechus manatus manatus	Antillean Manatee	Manati Antillano	Mammal	E	Coastal Zones

We would like to consult the FWS if these species or habitats are known to exist within the site. The University of Puerto Rico - Arecibo is taking all the necessary precautions to avoid any potential impacts from the stormwater system into potential habitats located within their boundaries. It is our understanding that discharges of stormwater from the Campus MS4 System will not harm any species near the town of Arecibo.

Our office is handling all issues concerning the MS4s/NPDES permit for the UPRA. If you have any questions, or if you need more information, please do not hesitate to contact us via email at jvarocho@ecostahlia.com or pamy@ecostahlia.com, and/or by phone at 939.338.7044 or at 787.600.5250. I would like to thank you for your time and interest in this matter.

Sincerely,

Javier Vélez Arocho, Partner
Ecostahlia: Consultores Ambientales

Cc: Dr. Otilio González, Rector
Elaine Santiago, Especialista en Salud, Seguridad Amb.

CONSULTORES AMBIENTALES

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11.5 Appendix E


SHPO Determination Letter



Formulario para el control de entrega.
Proyectos de sección 106

(Delivery control form 106 Section)



Sección A. Información a ser llenada por el proponente* (Section A. Information to be filled by proponent)			
Nombre del Proyecto/ Project's name		Número de referencia federal/ Reference federal number	
NPDES-MS4 SMALL MUNICIPAL STORM WATER MANAGEMENT PLAN (SWMP) FOR SEPARATE STORM SEWER SYSTEMS (MS4'S), NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PHASE II		PRR040005	
Municipio/ Municipality	Barrio/ Ward	Nombre del Proponente/ Proponent's name	
ARECIBO	URBAN	UNIVERSITY OF PUERTO RICO AT ARECIBO	
Agencia Federal/ Federal Agency		Total de fondos federales solicitados/ Total of federal funds to be requested	Total de acres/ Total amount of acres
USEPA		N/A	±50 ACRES
Nombre de la persona que entrega/ Name of person who delivers		Firma/Signature	
ECOSTAHLIA CONSULTORES AMBIENTALES REP. AUTHORIZED JAVIER VELEZ AROCHO			
Sección B. Información a ser llenada por la OECH al momento de la entrega del proyecto (Section B. Information to be filled by SHPO upon delivery)			
Fecha de entrega en la OECH/ SHPO delivery date		Nombre y firma de la persona que recibe/ Name and signature of person who received	

* Para poder cumplir su labor ministerial la OECH requiere que la Sección A de este formulario sea completada en su totalidad. Por tal razón, no se aceptarán proyectos que incumplan este requerimiento.
(To carry out our duties, the SHPO requires that Section A of this form be totally filled-out. For this reason, we will not accept an incomplete form.)



13 de febrero de 2017

Arqueólogo Miguel Bonini
Director Interino
Oficina Estatal de Preservación Histórica
PO Box 9023935
San Juan, PR 00902-3936

RE: SOLICITUD DE ENDOSO SOBRE LAS DESCARGAS DEL SISTEMA PLUVIAL
MUNICIPAL UPR-ARECIBO

Estimado Sr. Bonini:

La Agencia de Protección Ambiental de los Estados Unidos (USEPA en inglés) publicó el nuevo permiso para el Programa de Control de Contaminación por Aguas de Escorrentía (NPDES-MS4). Como parte de los requisitos de dicho permiso está el realizar una consulta a su agencia y solicitar un endoso que concurra con la determinación de criterios establecidos por la "National Historic Preservation Act". El endoso será parte de los documentos que acompañarán el Plan de Manejo de Contaminación de este permiso.

Por este medio, solicitamos un endoso de parte de la oficina de Preservación Histórica para la Universidad de Puerto Rico – Arecibo donde concurra que cumplimos con el criterio establecido por la ley federal en el Inciso B de la Notificación de Intención (NOI) del Programa de Control de Contaminación por Aguas de Escorrentía NPDES-MS4:

Criterion B: There are no historic properties or properties eligible for listing in the National Register of Historic Places within the area of potential effects (APE).

Según el mapa de los puntos de descarga del sistema pluvial del Recinto, las descargas de ésta infraestructura se concentran en las áreas urbanas aledañas. Este sistema de cunetones/tuberías y canales está construido hace más de 40 años. Las estructuras incluidas en el Registro Nacional de Edificios Históricos están localizadas fuera de ésta área:

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1. Luis Gonzalo Marín
2. Cambalache Ridge
3. Casa Alcaldía de Arecibo
4. Casa Córdoba
5. Casa de la Diosa Mita
6. Casa Ulanga
7. Corregimiento
8. Edificio Oliver
9. Faro de Arecibo
10. Gonzalo Marín
11. Mercado de Carnes

La Notificación de Intención fue entregada ante la agencia y sólo esperamos por este endoso para adjuntarlo al Plan que será presentado a la comunidad para comentarios durante el mes de marzo de 2017.

Agradecemos de antemano su tiempo e interés en este particular. Si tiene alguna duda o si necesita más información puede comunicarse con nosotros vía email a jvarocho@ecostahlia.com o por teléfono al (787) 600-5250.

Cordialmente,

Javier Vélez Arocho
Socio
EcoStahlia: Consultores Ambientales
Calle Ismael Rivera #430 Altos
Santurce, Puerto Rico 00915

Cc: Dr. Otilio González, Rector
Elaine Santiago, Especialista en Salud, Seguridad Amb.

CONSULTORES AMBIENTALES

Box 11613, Caparra Heights Station, San Juan, Puerto Rico 00922-1613 • T: 939-338-7044



ACUSE DE RECIBO

ENVIADO A:	Arqueol. Miguel Bonini	DE:	Javier Vélez Arocho
COMPAÑÍA:	State Historic Preservation Office	Cantidad de documentos:	1
TELÉFONO:	(787) 721-3737	TELÉFONO:	787.600.5250
FECHA:	22 de febrero de 2017	ENVIADO VIA:	A la mano

FAVOR DE REVISAR DOCUMENTOS ADJUNTO Y MARCAR COMO RECIBIDOS:

DOCUMENTOS ENTREGADOS:

☒ Solicitud de endoso sobre las descargas del sistema pluvial Municipal UPR - Arecibo

RECIBIDO POR:

FIRMA: 

NOMBRE EN LETRA DE MOLDE: Salimar Resto

TELÉFONO: (787) 721-3737

FECHA DE RECIBO: 02/22/2017



28 de febrero de 2017

Arqueólogo Carlos A. Rubio Cancela
Oficial de Preservación Histórica Estatal
Oficina Estatal de Preservación Histórica
PO Box 9023935
San Juan, PR 00902-3936

Atención: Arqueólogo Miguel Bonini

RE: Comunicación 20 de marzo de 2017 – “NPDES Small Municipal Storm Water Management Plan, Islandwide, Puerto Rico - SHPO: 02-22-17-02 thru 18

Estimado Sr. Rubio-Cancela:

Agradecemos su comunicación del 20 de marzo de 2017 donde nos requiere información adicional sobre los Planes de Control de Contaminación por Aguas de Escorrentía en 17 municipios de Puerto Rico. Según discutiera en llamada telefónica con el Arqueólogo Miguel Bonini, las condiciones bajo las que se solicita la carta de concurrencia para estos municipios son las siguientes:

1. Todos los municipios tienen permisos que están bajo proceso de renovación. El nuevo permiso entró en vigor el 1 de julio de 2016. Excepto por una Notificación de Intención (NOI) que estaremos enviando próximamente para el Recinto de Ciencias Médicas de la Universidad de Puerto Rico, todos los municipios tienen permisos con la Agencia de Protección Ambiental de Estados Unidos (USEPA).
2. Los endosos y/o carta de concurrencia que estamos solicitando para estos municipios se hacen bajo el criterio establecido por la ley federal en el Inciso A de la Notificación de Intención (NOI) del Programa de Control de Contaminación por Aguas de Escorrentía NPDES-MS4:

Criterion A: There is no potential of an adverse effect on historic properties because there will be no new ground disturbing control measures (which include stormwater conveyances) constructed or installed.

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Si en el futuro alguno de estos municipios presentara proyectos que requieran excavaciones y/o perturbaciones del suelo, sus representantes deberán presentar las debidas solicitudes de permisos tanto en la USEPA, el USFWS como en el SHPO. Según los mapas de los puntos de descarga de los sistemas pluviales de los Municipios, las descargas de esta infraestructura se concentran en las áreas urbanas aledañas. Estos sistemas de cunetones/tuberías y canales están contruidos hace más de 40 años. La Notificación de Intención fue entregada ante la agencia y sólo esperamos por este endoso para adjuntarlo al Plan que será presentado a la comunidad para comentarios durante el mes de mayo de 2017.

Agradecemos de antemano su tiempo e interés en este particular. Si tiene alguna duda o si necesita más información puede comunicarse con nosotros vía email a jvarocho@ecostahlia.com o por teléfono al (787) 600-5250.

Cordialmente,

Javier Vélez Arocho
Socio
EcoStahlia: Consultores Ambientales
Calle Ismael Rivera #430 Altos
Santurce, Puerto Rico 00915
www.ecostahlia.com

CONSULTORES AMBIENTALES

Box 11613, Caparra Heights Station, San Juan, Puerto Rico 00922-1613 • T: 939-338-7044

11.6 Appendix F

MS4 Infrastructure Maps

11.7 Appendix G

Circular Letters

9 de marzo de 2017

CARTA CIRCULAR 2016-2017-05

Comité de Implementación del Programa para el
Manejo de Aguas de Escorrentía ("SWMP")

PROGRAMA PARA EL MANEJO DE AGUAS DE ESCORRENTÍA DE LA UNIVERSIDAD DE PUERTO RICO EN ARECIBO



La Agencia Federal de Protección Ambiental (EPA, por sus siglas en inglés), como parte de las enmiendas hechas por el Congreso de los Estados Unidos a la Ley de Agua Limpia (CWA, por sus siglas en inglés, del 1977), desarrolló un Programa de Permisos de Aguas de Escorrentía (NPDES, por sus siglas en inglés) aplicable a los municipios y entidades públicas con sistemas pluviales separados, tales como universidades y hospitales. Particularmente, desde el año 2007 la EPA emitió el Permiso General para Descargas de Aguas de Lluvia Municipales, mejor conocido como "Small MS4" (en adelante, "Permiso MS4"). Este Programa está diseñado para reglamentar las descargas de aguas de escorrentía provenientes de sistemas pluviales municipales y otras entidades públicas, y otras descargas que contribuyen significativamente a las violaciones de los estándares de calidad de agua debido a la cantidad de contaminantes. Las aguas de escorrentía son las aguas que luego de la lluvia corren sobre los edificios, calles, aceras y otras superficies impermeables. Estas aguas pueden recoger basura, suciedad, aceite y otros contaminantes que fluyen al sistema de alcantarillado pluvial que las lleva directamente a lagos, arroyos, ríos, quebradas, humedales, aguas costeras o sistemas pluviales municipales. Todo lo que entra al sistema de alcantarillado pluvial es descargado, sin tratamiento, a los cuerpos de agua que son usados para nadar, pescar y como suministro de agua potable.

La Universidad de Puerto Rico en Arecibo (UPRA) está cubierta bajo las disposiciones del Permiso MS4. En agosto de 2007 se sometió a EPA un Programa para el Manejo de Aguas de Escorrentía el cual ha sido implementado por la UPRA. Durante el mes de julio del 2016, la EPA remitió el Permiso MS4 y la UPRA renovó su cubierta bajo el nuevo Permiso MS4 y estará trabajando en la revisión e implementación de su Programa para el Manejo de Aguas de Escorrentía ("SWMP") para cumplir con sus obligaciones bajo el nuevo permiso y evitar la imposición de penalidades a la Universidad.

PO Box 4010
Arecibo, PR 00614-4010

(787) 815-0000
Exts. 1000, 1005
Fax: (787) 880-2245
Directo: (787) 878-2714
rectoria.arecibo@upr.edu

"Patrono con igual oportunidad de empleo"

Este programa tiene dos objetivos fundamentales:

1. Describir los controles que la UPRA ha desarrollado y va a implantar para reducir la descarga de contaminantes.
2. Identificar actividades, procedimientos operacionales y mejoras estructurales que ayuden a reducir la cantidad de contaminantes potenciales en el sistema pluvial.

El Programa para el Manejo de Aguas de Escorrentía contiene seis componentes que deben ser implantados apropiadamente en la UPRA, para lograr la reducción de la potencial descarga de contaminantes en los cuerpos de agua receptoras. Los seis componentes descritos en el Programa como "Medidas Mínimas de Control" son los siguientes:

- Programa de Educación Pública
- Participación Pública
- Identificación y Eliminación de Descargas Ilícitas
- Control de Aguas de Escorrentía en Actividades de Construcción
- Control de Aguas de Escorrentía en Construcciones Existentes
- Prevención de Contaminación y Buenas Prácticas de Orden y Limpieza

Para continuar logrando los objetivos del Permiso MS4 es necesario dar continuidad al comité de implementación del SWMP y garantizar el compromiso de todos sus miembros con lograr el cumplimiento de los requisitos del nuevo permiso MS4. Por medio de la presente carta circular se establece el nuevo "Comité de Implementación del SWMP de UPRA", cuyos integrantes serán:

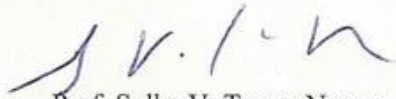
1. Decano(a) de Asuntos Académicos
2. Decano(a) de Administración
3. Director(a) Oficina de Planificación
4. Ayudante del Rector
5. Director(a) Oficina de Recursos Físicos
6. Director(a) Oficina de Salud, Seguridad Ocupacional y Protección Ambiental

Es importante que los integrantes del Comité de Implementación del SWMP incorporen, como parte de sus responsabilidades, la ejecución de medidas necesarias para el cumplimiento con el permiso MS4 que sean de inherencia a sus funciones y marco de acción en la UPRA.

Comité Implementación SWMP
Página 3
9 de marzo de 2017

Además, participarán en reuniones del comité para la coordinación de las medidas y estrategias de cumplimiento.

Es responsabilidad de todos conservar el ambiente y proteger nuestros recursos naturales.



Prof. Sylka V. Torres Navas
Rectora Interina

ess/ntv

2 de marzo de 2017

CARTA CIRCULAR NÚM. 2016-2017-03

Supervisores y Empleados de la
Oficina de Recursos Físicos, Aire Acondicionado y Cafetería
Universidad de Puerto Rico en Arecibo

**PROGRAMA PARA EL MANEJO DE AGUAS DE ESCORRENTÍA DE
LA UNIVERSIDAD DE PUERTO RICO EN ARECIBO**



Saludos cordiales. La Agencia Federal de Protección Ambiental (EPA, por sus siglas en inglés), como parte de las enmiendas hechas por el Congreso de los Estados Unidos a la Ley de Agua Limpia (CWA, por sus siglas en inglés, del 1977), desarrolló un Programa de Permisos de Aguas de Escorrentía (NPDES, por sus siglas en inglés) aplicable a los municipios y entidades públicas con sistemas pluviales separados, tales como universidades y hospitales. Particularmente, desde el año 2007 la EPA emitió el Permiso General para Descargas de Aguas de Lluvia Municipales, mejor conocido como "Small MS4" (en adelante, "Permiso MS4"). Este Programa está diseñado para reglamentar las descargas de aguas de escorrentía provenientes de sistemas pluviales municipales y otras entidades públicas, y otras descargas que contribuyen significativamente a las violaciones de los estándares de calidad de agua debido a la cantidad de contaminantes. Las aguas de escorrentía son las aguas que luego de la lluvia corren sobre los edificios, calles, aceras y otras superficies impermeables. Estas aguas pueden recoger basura, suciedad, aceite y otros contaminantes que fluyen al sistema de alcantarillado pluvial que las lleva directamente a lagos, arroyos, ríos, quebradas, humedales, aguas costeras o sistemas pluviales municipales. Todo lo que entra al sistema de alcantarillado pluvial es descargado, sin tratamiento, a los cuerpos de agua que son usados para nadar, pescar y como suministro de agua potable.

La Universidad de Puerto Rico en Arecibo (UPRA) está cubierta bajo las disposiciones del Permiso MS4. En agosto de 2007 se sometió a la EPA el Programa para el Manejo de Aguas de Escorrentía el cual ha sido implementado por la UPRA. Durante el mes de julio del 2016, la EPA remitió el Permiso MS4 y la UPRA renovó su cubierta bajo el nuevo Permiso MS4 y está trabajando en la revisión e implementación de su Programa para el Manejo de Aguas de Escorrentía para cumplir con sus obligaciones bajo el nuevo permiso y evitar la imposición de penalidades a la Universidad. Este programa tiene dos objetivos fundamentales:

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1. Describir los controles que la UPRA ha desarrollado y va a implantar para reducir la descarga de contaminantes.
2. Identificar actividades, procedimientos operacionales y mejoras estructurales que ayuden a reducir la cantidad de contaminantes potenciales en el sistema pluvial.

El Programa para el Manejo de Aguas de Escorrentía contiene seis componentes que deben ser implantados apropiadamente en la UPRA, para lograr la reducción de la potencial descarga de contaminantes en los cuerpos de agua receptoras. Los seis componentes descritos en el Programa como "Medidas Mínimas de Control" son los siguientes:

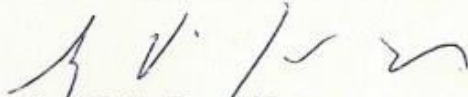
- Programa de Educación Pública
- Participación Pública
- Identificación y Eliminación de Descargas Ilícitas
- Control de Aguas de Escorrentía en Actividades de Construcción
- Control de Aguas de Escorrentía en Construcciones Existentes
- Prevención de Contaminación y Buenas Prácticas de Orden y Limpieza

Es importante que se realicen de manera apropiada los trabajos que se llevan a cabo en las diferentes áreas. El Permiso MS4 otorgado a la UPRA por la EPA prohíbe que las aguas resultantes de las siguientes actividades entren al sistema de alcantarillado pluvial:

- Lavado de vehículos de motor
- Lavado de pisos de la Cafetería
- Sobreflujo de las Torres de Enfriamiento
- Drenajes en pisos y de fregaderos
- Lavado de accesorios y equipos usados en pintura, entre otros.

Información sobre el Programa y todo lo relacionado con este tema está disponible en la página de internet de la UPRA (www.upra.edu/pmae). Además, pueden referirse a la Oficina de Salud, Seguridad Ocupacional y Protección Ambiental de nuestra Universidad.

Es responsabilidad de todos conservar el ambiente, proteger nuestros recursos naturales y estar en cumplimiento con las disposiciones de ley que nos aplican.



Prof. Sylka Torres Navas
Rectora Interina

ESS/jrr

9 de marzo de 2017

CARTA CIRCULAR 2016-2017-05

Comité de Implementación del Programa para el
Manejo de Aguas de Escorrentía ("SWMP")

PROGRAMA PARA EL MANEJO DE AGUAS DE ESCORRENTÍA DE LA UNIVERSIDAD DE PUERTO RICO EN ARECIBO



La Agencia Federal de Protección Ambiental (EPA, por sus siglas en inglés), como parte de las enmiendas hechas por el Congreso de los Estados Unidos a la Ley de Agua Limpia (CWA, por sus siglas en inglés, del 1977), desarrolló un Programa de Permisos de Aguas de Escorrentía (NPDES, por sus siglas en inglés) aplicable a los municipios y entidades públicas con sistemas pluviales separados, tales como universidades y hospitales. Particularmente, desde el año 2007 la EPA emitió el Permiso General para Descargas de Aguas de Lluvia Municipales, mejor conocido como "Small MS4" (en adelante, "Permiso MS4"). Este Programa está diseñado para reglamentar las descargas de aguas de escorrentía provenientes de sistemas pluviales municipales y otras entidades públicas, y otras descargas que contribuyen significativamente a las violaciones de los estándares de calidad de agua debido a la cantidad de contaminantes. Las aguas de escorrentía son las aguas que luego de la lluvia corren sobre los edificios, calles, aceras y otras superficies impermeables. Estas aguas pueden recoger basura, suciedad, aceite y otros contaminantes que fluyen al sistema de alcantarillado pluvial que las lleva directamente a lagos, arroyos, ríos, quebradas, humedales, aguas costeras o sistemas pluviales municipales. Todo lo que entra al sistema de alcantarillado pluvial es descargado, sin tratamiento, a los cuerpos de agua que son usados para nadar, pescar y como suministro de agua potable.

La Universidad de Puerto Rico en Arecibo (UPRA) está cubierta bajo las disposiciones del Permiso MS4. En agosto de 2007 se sometió a EPA un Programa para el Manejo de Aguas de Escorrentía el cual ha sido implementado por la UPRA. Durante el mes de julio del 2016, la EPA remitió el Permiso MS4 y la UPRA renovó su cubierta bajo el nuevo Permiso MS4 y estará trabajando en la revisión e implementación de su Programa para el Manejo de Aguas de Escorrentía ("SWMP") para cumplir con sus obligaciones bajo el nuevo permiso y evitar la imposición de penalidades a la Universidad.

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"Patrono con igual oportunidad de empleo"

Este programa tiene dos objetivos fundamentales:

1. Describir los controles que la UPRA ha desarrollado y va a implantar para reducir la descarga de contaminantes.
2. Identificar actividades, procedimientos operacionales y mejoras estructurales que ayuden a reducir la cantidad de contaminantes potenciales en el sistema pluvial.

El Programa para el Manejo de Aguas de Escorrentía contiene seis componentes que deben ser implantados apropiadamente en la UPRA, para lograr la reducción de la potencial descarga de contaminantes en los cuerpos de agua receptoras. Los seis componentes descritos en el Programa como "Medidas Mínimas de Control" son los siguientes:

- Programa de Educación Pública
- Participación Pública
- Identificación y Eliminación de Descargas Ilícitas
- Control de Aguas de Escorrentía en Actividades de Construcción
- Control de Aguas de Escorrentía en Construcciones Existentes
- Prevención de Contaminación y Buenas Prácticas de Orden y Limpieza

Para continuar logrando los objetivos del Permiso MS4 es necesario dar continuidad al comité de implementación del SWMP y garantizar el compromiso de todos sus miembros con lograr el cumplimiento de los requisitos del nuevo permiso MS4. Por medio de la presente carta circular se establece el nuevo "Comité de Implementación del SWMP de UPRA", cuyos integrantes serán:

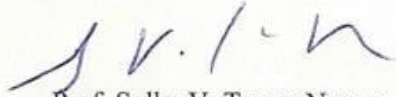
1. Decano(a) de Asuntos Académicos
2. Decano(a) de Administración
3. Director(a) Oficina de Planificación
4. Ayudante del Rector
5. Director(a) Oficina de Recursos Físicos
6. Director(a) Oficina de Salud, Seguridad Ocupacional y Protección Ambiental

Es importante que los integrantes del Comité de Implementación del SWMP incorporen, como parte de sus responsabilidades, la ejecución de medidas necesarias para el cumplimiento con el permiso MS4 que sean de inherencia a sus funciones y marco de acción en la UPRA.

Comité Implementación SWMP
Página 3
9 de marzo de 2017

Además, participarán en reuniones del comité para la coordinación de las medidas y estrategias de cumplimiento.

Es responsabilidad de todos conservar el ambiente y proteger nuestros recursos naturales.



Prof. Sylka V. Torres Navas
Rectora Interina

ess/ntv

11.8 Appendix H

IDDE/Outfalls SOP

11.9 Appendix I

Construction Site Inspection SOP



30 de octubre de 2008

Carta Circular 2008-01
Rectoría

Contratistas
Proyectos de Construcción en la Universidad de Puerto Rico en Arecibo

PROGRAMA PARA EL MANEJO DE AGUAS DE ESCORRENTÍA DE UPRA

La Agencia Federal de Protección Ambiental (EPA, por sus siglas en inglés), como parte de las enmiendas hechas por el Congreso de los Estados Unidos a la Ley de Agua Limpia (CWA, por sus siglas en inglés, del 1977), desarrolló un Programa de Permisos de Aguas de Escorrentía (NPDES, por sus siglas en inglés). Este Programa está diseñado para reglamentar las grandes descargas de aguas de escorrentía, incluyendo las asociadas a actividades industriales y a otras descargas que contribuyen significativamente a las violaciones de los estándares de calidad de agua debido a la cantidad de contaminantes. Las aguas de escorrentía son las aguas que luego de la lluvia, corren sobre los edificios, calles, aceras y otras superficies impermeables. Estas aguas pueden recoger basura, suciedad, aceite y otros contaminantes que fluyen al sistema de alcantarillado pluvial y las lleva directamente a lagos, arroyos, ríos, quebradas, humedales o aguas costeras. Todo lo que entra al sistema de alcantarillado pluvial es descargado, sin tratamiento, a los cuerpos de agua que son usados para nadar, pescar y como suministro de agua potable.

La Universidad de Puerto Rico en Arecibo (UPRA) está cubierta bajo las provisiones del Permiso General de Descarga (NPDES). En agosto de 2007 se sometió a EPA el Programa para el Manejo de Aguas de Escorrentía (SWMP) y debemos cumplir con todo lo establecido para evitar la imposición de penalidades a la Universidad. Este programa tiene dos objetivos fundamentales:

1. Describir los controles que la UPRA ha desarrollado y va a implantar para reducir la descarga de contaminantes.
2. Identificar actividades, procedimientos operacionales y mejoras estructurales que ayuden a reducir la cantidad de contaminantes potenciales en el sistema pluvial.

El Programa para el Manejo de Aguas de Escorrentía contiene seis componentes que deben ser implantados apropiadamente en la UPRA, para lograr la reducción de la potencial descarga de contaminantes en los cuerpos de agua receptoras. Los seis componentes descritos en el Programa como "Medidas Mínimas de Control" son los siguientes:

"Patrono con igual oportunidad de empleo"

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- Identificación y Eliminación de Descargas Ilícitas
- Control de Aguas de Escorrentía en Actividades de Construcción
- Control de Aguas de Escorrentía en Construcciones Existentes
- Prevención de Contaminación y Buenas Prácticas de Orden y Limpieza

Es importante que todas las compañías que realicen proyectos de construcción dentro de nuestras instalaciones se aseguren que cumplen con todos los requisitos y condiciones establecidas en nuestro SWMP. Estas compañías tienen que establecer las medidas de control para minimizar la posibilidad de que sedimentos y desperdicios en los proyectos de construcción lleguen al sistema pluvial. Además, en los casos que aplique, deberán cumplir con los requisitos establecidos por la Junta de Calidad Ambiental en el Permiso General, incluyendo las medidas de control de erosión y sedimentación. Estas medidas deberán incluir los procedimientos específicos que utilizarán para evitar que las aguas resultantes de las siguientes actividades entren al sistema de alcantarillado pluvial:

- Materiales de demolición de estructuras
- Sedimentación debido a excavaciones en el terreno
- Lavado de camiones de cemento
- Sustancias químicas
- Pinturas
- Basura
- Desechos sanitarios

Toda información referente a lo antes mencionado, incluyendo copia del Permiso deberá ser entregada a la Oficina de Salud, Seguridad Ocupacional y Protección Ambiental de la UPRA, antes de iniciar el proyecto. Es responsabilidad de los contratistas establecer y mantener, en todo momento, en sus proyectos de construcción Buenas Prácticas de Manejo (BMP's) que ayuden a minimizar los contaminantes que pueden ser arrastrados por la lluvia.

Información sobre el Programa de la UPRA y todo lo relacionado con este tema está disponible en nuestra página de internet (www.upra.edu/pmae). Además, pueden referirse a la Oficina de Salud, Seguridad Ocupacional y Protección Ambiental de nuestro Colegio. Es responsabilidad de todos conservar el ambiente y proteger nuestros recursos naturales.


Edwin Hernández Vera, Ph.D.
Rector

ess

Universidad de Puerto Rico en Arecibo
Oficina de Salud, Seguridad Ocupacional y Protección Ambiental

**DOCUMENTOS SOLICITADOS A COMPAÑÍAS QUE REALIZAN
PROYECTOS DE CONSTRUCCIÓN EN LA UPRA**

Se requiere la entrega de los siguientes documentos e información por parte de los representantes de las compañías contratadas por la Universidad para realizar proyectos de construcción en los predios de la UPRA para asegurar el cumplimiento con las agencias que nos regulan:

1. Programa de Salud y Seguridad de la compañía y de subcontratistas
 - Equipo de Protección Personal, Inspecciones, Análisis de Riesgo, Protección contra caídas, Andamios, etc.
2. Norma de Comunicación de Peligros
 - Si durante el proyecto se utilizarán sustancias químicas (Ver Lista de Cotejo para contratistas).
3. Evidencia de adiestramientos relacionados a la salud y seguridad de los empleados que estarán trabajando en el proyecto (incluyendo los de subcontratistas).
 - Charlas semanales de Seguridad
 - 10 y/o 30 horas de OSHA Industria de la Construcción
4. Copia del Permiso General Consolidado sometido a Oficina de Gerencia de Permisos
 - Plan CES
 - Informes de Progreso Plan CES
5. Minutas de reuniones donde se atiendan situaciones relacionadas a Salud, Seguridad Ocupacional y Ambiental.
6. Evidencia de cumplimiento con el Programa para el Manejo de Aguas de Escorrentía de la UPRA
 - Medidas establecidas por la compañía para evitar la contaminación de las aguas de lluvia y la descarga de contaminantes al sistema de alcantarillado pluvial.
 - Contenedores de basura (tapados en todo momento)
 - Escombros, materiales de demolición y materiales descartados
 - Almacenaje de pinturas, aceites, materia prima, arena y piedra, etc.
 - Lavado de camiones de cemento
 - Remoción de terreno
7. Medidas establecidas para el cumplimiento con el Programa de Operación y Mantenimiento de Materiales de construcción con contenido de Asbesto
 - Áreas a impactar que estén incluidas en el inventario de la UPRA
 - Formas OM-30 (Orden para autorizar trabajos de mantenimiento)
 - Pruebas a realizar
 - Monitoreos
 - Trabajos de remoción de ACM (incluyendo permisos sometidos a la JCA), etc.
8. Copias de manifiestos de disposición de escombros
9. Sistema de alarma de nuevas construcciones, su conexión y compatibilidad con sistemas existentes (Impactos al sistema existente).
10. Trabajos de demolición (horarios, niveles de ruido, generación de particulado, escombros, etc.)
11. Notificación a la oficina de cualquier situación de emergencia surgida durante el proyecto (incluyendo derrames de aceite de camiones, etc.)
12. Protección contra caídas (Persona competente, EPP, etc.)
13. Andamios

11.10 Appendix J

Redevelopment Guidelines SOP

11.11 Appendix K

University Facilities SWPPP

11.12 Appendix L

Good Housekeeping SOP

11.13 Appendix M

2016 MS4 General Permit

**United States Environmental Protection Agency (EPA)
National Pollutant Discharge Elimination System (NPDES)**

**GENERAL PERMIT FOR STORMWATER DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS
IN THE COMMONWEALTH OF PUERTO RICO
PERMIT NUMBER PRR040000
PERMIT NUMBER PRR04000F**

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act (CWA), as amended (33 U.S.C. Part 1251 *et seq.*), any operator of a small municipal separate storm sewer system located in the Commonwealth of Puerto Rico are authorized to discharge to waters of the United States in accordance with the eligibility described in Section 1.2, and submits a complete and accurate Notice of Intent, in accordance with Section 1.7 of this permit and receives written authorization from EPA.

The permit is structured to allow discharge in accordance with the conditions and the requirements set forth in Sections 1 through 6, including Appendices A through F.

This permit shall become effective on **July 1, 2016**.

This permit and the authorization to discharge shall expire at midnight, **June 30, 2021**.

Signed this *18th* day of *May* 2014



José C. Font, Director
Caribbean Environmental Protection Division
U.S. Environmental Protection Agency
City View Plaza II – Suite 7000
48 Road 165 Km. 1.2
Guaynabo, Puerto Rico 00968-8069

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1.0 Coverage under this Permit

1.1. Areas of Coverage

This permit covers the small municipal separate storm sewer systems (MS4s) located within:

- Commonwealth of Puerto Rico
- Federal Facilities within Commonwealth of Puerto Rico

The permit applies to:

- Systems owned by public universities,
- Systems owned by the Commonwealth of Puerto Rico, municipalities, or the United States; and
- Systems owned by the Commonwealth of Puerto Rico transportation agencies.

1.2. Eligibility

MS4 that meet the eligibility requirements in Section 1.2.1, Section 1.9 and Section 1.10 are eligible for coverage under this permit.

1.2.1 Small MS4s

This permit authorizes the discharge of stormwater from small MS4s as defined at 40 CFR § 122.26(b)(16) and Appendix A. This includes MS4s described in 40 CFR § 122.32(a)(1) or (a)(2). An MS4 is eligible for authorization under this permit if it is:

- An MS4 (see definition in Appendix A) within the permit areas described in Section 1.1;
- Located either fully or partially within an urbanized area (UA) as determined by the 2010, 2000 and 1990 Decennial Census by the Bureau of Census; or
- Located in a geographic area designated by EPA as requiring a permit.

If the small MS4 is not located entirely within an urbanized area, only the portion of the MS4 that is located within the urbanized area is regulated by this permit consistent with 40 CFR § 122.32(a)(1).

1.3 Limitations on Coverage

This permit does not authorize the following:

- a. Stormwater discharges mixed with sources of non-stormwater, unless the non-stormwater discharges are either (1) authorized under a separate NPDES permit, or (2) allowed under Section 1.4.
- b. Stormwater discharges associated with industrial activity as defined in 40 CFR § 122.26 (b)(14)(i - ix) and (xi).
- c. Stormwater discharges associated with construction activity as defined in 40 CFR § 122.26(b) (14) (x) or (b) (15).
- d. Stormwater discharges currently covered under another NPDES permit, including discharges covered under other regionally issued general permits.

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- d. Stormwater discharges currently covered under another NPDES permit, including discharges covered under other regionally issued general permits.

- e. Stormwater discharges or discharges related activities that are likely to adversely affect any species that are listed as endangered or threatened under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is designated as critical under the ESA. The permittee shall follow the procedures detailed in Appendix C to make a determination regarding eligibility. The permittee shall certify compliance with this provision on the submitted Notice of Intent (NOI).
- f. Stormwater discharges, allowable non-stormwater discharges, or stormwater discharge-related activities that have an effect on a property that is listed or eligible for listing on the National Register of Historic Properties (NRHPS). The permittee shall follow the procedures detailed in Appendix D to make a determination regarding eligibility. The permittee shall certify compliance with this provision on the submitted NOI.
- g. Stormwater discharges to territorial seas, the contiguous zone, and the oceans unless such discharges are in compliance with the ocean discharge criteria of 40 CFR § 125, Subpart M.
- h. Stormwater discharges prohibited under 40 CFR § 122.4.
- i. Stormwater discharges to the subsurface subject to Commonwealth of Puerto Rico Underground Injection Control (UIC) regulations. Although the permit includes provisions related to infiltration and groundwater recharge, structural controls that dispose of stormwater into the ground may be subject to UIC regulation requirements. Requests for authorization for such discharges shall be made to the Puerto Rico Environmental Quality Board (PREQB), Groundwater Protection Division.

1.4 Allowable Non-stormwater Discharges

The following categories of non-stormwater discharges are allowed under this permit unless the permittee, EPA, or the PREQB identifies any category of non-stormwater discharge in Section 1.4 1-18 as a significant contributor of pollutants (see definition in Appendix A) to the MS4, then that category is not allowed under Section 1.4, but rather shall be deemed an “illicit discharge” under Section 2.4.4.1 and the permittee shall address that category as part of the Illicit Discharge Detection and Elimination (IDDE) Program described in Section 2.4.4 of this permit.

- 1. Water line flushing
- 2. Landscape irrigation
- 3. Diverted stream flows
- 4. Rising ground water
- 5. Uncontaminated ground water infiltration (as defined at 40 CFR § 35.2005(20))
- 6. Uncontaminated pumped ground water
- 7. Discharge from potable water sources
- 8. Foundation drains
- 9. Air condition condensate
- 10. Irrigation water, springs
- 11. Water from crawl space pumps

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- 8. Foundation drains
- 9. Air condition condensate
- 10. Irrigation water, springs
- 11. Water from crawl space pumps

12. Footing drains
13. Lawn watering
14. Individual resident car washing
15. Flows from riparian habitats and wetlands
16. De-chlorinated swimming pool discharges
17. Street wash waters
18. Residential building wash waters without detergents

Discharges or flows from firefighting activities are allowed under this permit. However, discharges from fighting activities that are identified as significant sources of pollutants to waters of the United States need to be addressed.

1.5 Permit Compliance

Any non-compliance with any requirement of this permit constitutes a violation of the permit and the CWA, and may be grounds for an enforcement action resulting in the imposition of injunctive relief and/or penalties.

1.6 Continuation of this Permit

If this permit is not reissued prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedure Act and 40 CFR § 122.6. The terms and conditions of this permit will remain in force and effect for discharges that were authorized prior to expiration. If a small MS4 was granted permit authorization prior to the expiration date of this permit, it will automatically remain authorized by this permit until the earliest of:

- Authorization under a reissued general permit following timely and appropriate submittal of a complete and accurate NOI requesting authorization to discharge under the reissued permit; or
- Issuance or denial of an individual permit for the MS4's discharges; or
- Authorization or denial under an alternative general permit.

If the MS4 operator does not submit a timely, appropriate, complete and accurate NOI requesting authorization to discharge under the reissued permit, or a timely request for authorization under an individual or alternative general permit, authorization under this permit will terminate on the due date for the NOI under the reissued permit unless otherwise specified in the reissued permit.

1.7 Obtaining Authorization to Discharge

1.7.1 How to Obtain Authorization to Discharge

To obtain authorization under this permit, a small MS4 shall:

- Be located in the areas listed in Section 1.1 of this permit;
- Meet the eligibility requirements in Section 1.2, Section 1.9 and Section 1.10;
- Submit a complete and accurate NOI in accordance with the requirements of Section 1.7.2; and
- Receive written authorization from EPA.

1.7.2 Notice of Intent

- a. Operators of Small MS4s seeking authorization to discharge under the terms and conditions of this permit shall submit a complete and accurate NOI that contains the information identified in Appendix F. This includes operators of small MS4s that were previously authorized under the November 6, 2006 Small MS4 General Permit.
- b. The NOI shall be signed by an appropriate official (see Appendix B Subsection 11).
- c. The NOI shall contain the following 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 gather and evaluate 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, I certify that the information submitted is, to 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.

The name and title of the official shall be printed or typed, and shall be followed by signature and date.

- d. The NOI shall be submitted within 90 days of the effective date of the permit. If EPA notifies a new MS4 that it is designated under 40 CFR § 122.32(a)(2) or (b), the NOI shall be submitted within 180 days of receipt of notice unless granted a longer period of time by EPA.

1.7.3 Submission of Notice of Intent

- a. All small MS4s shall submit a complete and accurate Notice of Intent to EPA-Region 2 at the following address:

United States Environmental Protection Agency
Multimedia Permits and Compliance Branch
City View Plaza II – Suite 7000
48 Rd. 165 Km. 1.2
Guaynabo, Puerto Rico 00968-8069
ATTN: Sergio Bosques

- b. Late notification: A small MS4 is not prohibited from submitting an NOI after the dates provided in Section 1.7.2.d. However, if a late NOI is submitted, authorization under this permit only covers discharges that occur after permit authorization is granted. EPA reserves the right to take enforcement actions for any unpermitted discharges.

1.7.4 Co-Permittees under a Single Notice of Intent

A permittee may partner with other MS4s to develop and implement a storm water management program. The permittee may also jointly submit an NOI with one or more MS4; however, each MS4 must fill out the NOI form in Appendix F. The description of the storm water management

program must clearly describe which permittees are responsible for implementing each of the control measures.

1.7.5 Public Notice of NOI and Effective Date of Coverage

- a. EPA will provide a public notice and opportunity for comment on the contents of the submitted NOIs. The public comment period will be a minimum of 30 calendar days. The NOIs will be posted on EPA Region 2's website:
<https://www.epa.gov/region02/water/npdes/permits/index.html>.
- b. Based on a review of an NOI, public comments received, or other information, EPA may grant authorization, extend the public comment period, or deny authorization under this permit and require submission of an application for an individual or alternative NPDES permit (see Section 1.8). A small MS4 will be authorized to discharge under the terms and conditions of this permit upon written receipt of notice of authorization from EPA.
- c. Permittees whose authorization to discharge under the 2006 Small MS4 General Permit, which expired on November 5, 2011 that has been administratively continued in accordance with the Administrative Procedure Act (5 U.S.C. Part 558(c)) and 40 CFR § 122.6, who wish to obtain coverage under this permit, must submit a new complete and accurate NOI requesting permit coverage in accordance with the requirements of Section 1.7 of this permit to EPA within 90 days after the effective date of this permit. For enforcement purposes, permittees whose authorization to discharge under the expired 2006 Small MS4 General Permit was administratively continued, who fail to submit a timely, complete and accurate NOI requesting authorization to discharge under the reissued permit or an application for an individual NPDES permit within 90 days after the effective date of this permit, will be considered to be discharging without a permit as of the effective date of this permit.

1.8 Individual Permits and Alternative General Permits

- a. EPA may require a small MS4 to apply for and obtain authorization under either an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition EPA in accordance with the provisions of 40 CFR § 122.26(f) to require a small MS4 to apply for and/or obtain authorization under either an individual NPDES permit or an alternative NPDES general permit. If EPA requires a small MS4 to apply for an individual or alternative NPDES permit, EPA will notify the small MS4 in writing that a permit application is required. This notification will include a brief statement of the reasons for this decision and will provide application information and an application deadline. If a small MS4 is authorized under the 2006 Small MS4 General Permit or this permit and fails to submit an individual NPDES or an alternative general permit NPDES permit application as required by EPA, then the authorization under the 2006 Small MS4 General Permit or this permit to the small MS4 is automatically terminated at the end of the date specified by EPA as the deadline for application submittal. EPA reserves the right to take enforcement action for any unpermitted discharge.

- b. A small MS4 may request to be excluded from this general permit by applying for an individual permit or authorization under an alternative general permit. In such a case, a small MS4 shall submit an individual permit application in accordance with the requirements of 40 CFR § 122.33(b)(2)(i) or § 122.33(b)(2)(ii), with reasons supporting the request, to EPA at the address listed in Section 1.7.3 of this permit. The request may be granted by issuance of an individual permit or authorization under an alternative general permit if EPA determines that the reasons stated by the small MS4 are adequate to support the request. (See 40 CFR § 122.28(b)(3)).
- c. When an individual NPDES permit is issued, or a small MS4 is authorized to discharge under an alternative NPDES general permit, authorization under this permit shall automatically terminate on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit.

1.9 Endangered and Threatened Species and Critical Habitat Eligibility Determination

The small MS4 shall certify in the NOI that it is eligible to be covered under the permit with regard to endangered and threatened species and critical habitat protection submitted pursuant to Section 1.7.2. The determination shall be made in accordance with the Endangered Species Guidance Procedure found in Appendix C. The Stormwater Management Program (SWMP), required under Section 1.11 of this permit, shall include documentation supporting the permittee's eligibility determination with regard to federal Endangered and Threatened Species and Critical Habitat Protection, including:

- Information on whether federally listed endangered or threatened species, or critical habitat are found in proximity to the MS4's stormwater outfalls, or activities or structures involved in stormwater best management practices (BMPs);
- Whether such species or habitat are likely to be adversely affected by the stormwater discharges or stormwater discharge-related activities, e.g., BMP installation;
- Results of the endangered and threatened species and critical habitat screening determinations made pursuant to Appendix C; and
- If any such species or habitats are present, a description of the measures the MS4 shall implement to protect federally listed endangered or threatened species, or critical habitat, including any conditions imposed by the U.S. Fish and Wildlife Service or the U.S. National Marine Fisheries Service (the Services). If a permittee fails to document and implement such measures, those discharges are ineligible for coverage under this permit.

1.10 Historic Properties Eligibility Determination

The small MS4 shall certify in the NOI that it is eligible to be covered under the permit with regard to historic properties submitted pursuant to Section 1.7.2. The determination shall be made in accordance with the National Historic Preservation Act Review Guidance Procedure found in Appendix D. The SWMP, required under Section 1.11 of this permit, shall include documentation supporting the MS4's eligibility determination with regard to Historic Properties Preservation, including:

- Information on whether the permittee's stormwater discharges, allowable non-stormwater discharges, or stormwater discharge-related activities would have an effect on a property that is listed or eligible for listing on the National Register of Historic Properties (NRHP);

- Where such effects may occur, any documents received by the permittee or any written agreements the permittee has made with the State Historic Preservation Office (SHPO) representative to mitigate those effects;
- Results of the historic property screening investigations made pursuant to Appendix D; and
- If applicable, a description of the measures the permittee shall implement to avoid or minimize adverse impacts on places listed, or eligible for listing, on the NRHP, including any conditions imposed by the SHPO. If the permittee fails to document and implement such measures, those discharges are ineligible for coverage under this permit.

1.11 Stormwater Management Program (SWMP)

- a. The new permittee shall develop, implement, and enforce a written SWMP. The SWMP shall be signed in accordance with Appendix B, Subsection 11, and shall include the date of signature. A signature and date is required for initial program preparation and for any significant revision to the program. The written SWMP shall be developed and submitted within one hundred eighty (180) days from the date of authorization of coverage under the permit. The implementation of the SWMP shall commence immediately after submission to EPA.

The SWMP is the document used by the permittee to describe the activities and measures that will be implemented to meet the terms and conditions of the permit. The SWMP shall accurately describe the permittee's plans and activities. The document shall be updated and/or modified during the permit term as the permittee's activities change.

- b. Permittees authorized by the 2006 Small MS4 General Permit shall modify or update their existing Best Management Practices (BMPs) and measurable goals to meet the terms and conditions of this permit within one (1) year from the date of authorization of coverage under the permit; unless stated otherwise. These modifications and updates shall be reflected in the written SWMP. Permittees authorized by the 2006 Small MS4 General Permit shall continue to implement their existing SWMP until the program has been modified or updated. Once the existing SWMP has been modified or updated, the implementation of the modified/updated SWMP shall commence immediately after submission to EPA.
- c. The permittee is encouraged to maintain an adequate funding source for the implementation of this program. Adequate funding means that a consistent source of revenue exists for the program.

1.11.1 Stormwater Management Program Availability

- a. The permittee shall retain a copy of the current SWMP required by this permit at the office or facility of the person listed as the program contact on the submitted NOI. The SWMP shall be immediately available to representatives from EPA; PREQB; the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) at the time of an onsite inspection or upon request.
- b. The permittee shall make the SWMP available to the public during normal business hours. The permittee may charge a reasonable fee for copy requests. The permittee is

encouraged to satisfy this requirement by posting the SWMP online or making it available upon written request.

1.11.2 Contents of the Stormwater Management Program

The SWMP shall contain the following:

- Identification of names and titles of people responsible for program implementation. If a position is currently unfilled, list the title of the position and modify the SWMP with the name once the position is filled;
- Listing of all receiving waterbody segments, their classification under the applicable Commonwealth of Puerto Rico water quality standards, any impairment(s) and associated pollutant(s) of concern, applicable Total Maximum Daily Loads (TMDLs) and Waste Load Allocations (WLAs), and number of outfalls from the MS4 that discharge to each waterbody. In addition to the receiving water, the permittee shall document in the SWMP all public drinking water sources (surface water and groundwater) that may be impacted by MS4 discharges;
- Listing of all interconnected MS4s and other separate storm sewer systems receiving a discharge from the permitted MS4, the receiving waterbody segment(s) ultimately receiving the discharge, their classification under the applicable Commonwealth of Puerto Rico water quality standards, any impairment(s) and associated pollutant(s) of concern, applicable TMDLs and WLAs, and the number of interconnections;
- Documentation of compliance with Section 1.9;
- Documentation of compliance with Section 1.10;
- The existing map of the separate storm sewer system. The modified map of the storm sewer system will be submit as required by Section 2.4.4.6;
- Description of practices to achieve compliance with Section 2.2.1 (TMDL requirements) including:
 - The person(s) or department responsible for the measure;
 - The BMPs for the control measure or permit requirement;
 - The measurable goal(s) for each BMP. Each measurable goal shall include milestones and timeframes for its implementation and have a quantity or quality associated with its endpoint. Each goal must have an associated measure of assessment.
- Water Quality Response Plans as specified in Section 2.2.2, including for each BMP:
 - The person(s) or department responsible for the measure;
 - The BMPs for the control measure or permit requirement;
 - The measurable goal(s) for each BMP. Each measurable goal shall include milestones and timeframes for its implementation and have a quantity or quality associated with its endpoint. Each goal must have a measure of assessment associated with it.
- Description of any other practices to achieve compliance with Section 2.1 (water quality based requirements);
- Description of practices to achieve compliance with Section 2.4 (Maximum Extent Practicable requirements);
 - For each permit condition in Section 2.4 identify:
 - The person(s) or department responsible for the measure;
 - The BMPs for the control measure or permit requirement;

- The measurable goal(s) for each BMP. Each measurable goal shall include milestones and timeframes for its implementation and have a quantity or quality associated with its endpoint. Each goal shall have a measure of assessment associated with it.
- Annual program evaluation (Section 3.1). Update annually and maintain copies.

1.11.3 Requirements for New Permittees

Permittees seeking authorization for the first time shall meet all deadlines contained in this permit except for specific deadlines which are modified as follows:

- Timelines for legal authority requirements in Section 2.3.3 shall be extended by three (3) years;
- Timelines for public education requirements in Section 2.4.2.2 shall be extended by one (1) year;
- Outfall Inventory under Section 2.4.4.7 shall be completed within two (2) years of the authorization under this permit;
- Outfall mapping under Section 2.4.4.6 shall be completed within four (4) years of the authorization under this permit. The permittee shall include its best available mapping with its SWMP while mapping requirements are being completed;
- All other timelines of the IDDE Program, program development, monitoring, and IDDE Program Implementation Goals and Milestones under Section 2.4.4 shall be extended by two (2) years;
- The ordinances, by-laws, or other regulatory mechanisms required by Sections 2.4.4, 2.4.5 and 2.4.6 shall be completed as soon as possible, but no later than three (3) years from the authorization under this permit; and
- Timelines for discharges to impaired waters without a TMDL under Section 2.2.2 shall be extended by two (2) years. This timeline extension does not apply to those discharges identified pursuant to Section 2.1.1.c within the first three (3) years after the authorization under this permit.

2.0 Non-Numeric Effluent Limitation

The permittee shall develop, implement and enforce a program to reduce the discharge of pollutants from the MS4 to the maximum extent practicable; to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act and the Puerto Rico Water Quality Standards (PRWQS). 40 CFR § 122.2 defines pollutant as dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water, as stated under 40 CFR § 122.2.

2.0 Water Quality Based Effluent Limitations

In addition to requirements to reduce the discharge of pollutants to the maximum extent practicable, pursuant to the Clean Water Act Section 402(p)(3)(B)(iii), this permit includes provisions to ensure that discharges from the permittee's small MS4 do not cause or contribute to an exceedance of water quality standards. The requirements found in this Section 2.1.1 and Section 2.2 constitute the water quality based effluent limits of this permit. Requirements to reduce the discharge of pollutants to the maximum extent practicable are set forth in Section 2.4.

2.1.1 Requirements to Meet Water Quality Standards

- a. Discharges shall not cause or contribute to an exceedance of applicable water quality standards (including numeric and narrative water quality criteria) for the receiving water. Applicable water quality standards are the PRWQS that have been federally approved as of the effective date of authorization of coverage under this permit.
- b. For each waterbody that receives a discharge from the small MS4, the permittee shall consult the water quality standards applicable to that waterbody. Applicable water quality standards are compiled at <http://www.epa.gov/waterscience/standards/wqslibrary/>. The Puerto Rico Environmental Quality Board also makes a copy of its regulations available at: www.jca.gobierno.pr.
- c. If at any time the permittee determines, or EPA or the PREQB determines, that a discharge causes or contributes to an exceedance of applicable water quality standards, the permittee shall within 60 days of becoming aware of the situation eliminate the conditions causing or contributing to an exceedance of water quality standards. If elimination of the conditions within 60 days is infeasible, the permittee shall develop a Water Quality Response Plan addressing the pollutant(s) causing the conditions (the "pollutants of concern") pursuant to Section 2.2.2 below. The permittee shall include in its annual report (1) a listing of any such discharges identified during the reporting period; (2) a description of measures taken to eliminate conditions within 60 days or the basis of a finding that such elimination is infeasible; and (3) a description of any Water Quality Response Plan as specified in Section 2.2.2. The permittee must comply with any additional requirements or schedules established by EPA or the PREQB, including any requirement to submit additional information concerning the potential cause of the exceedance. Any discharge causing

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or contributing to an exceedance of applicable water quality standards violates Section 2.1.1.a of this permit and remains a violation until eliminated. The 60 days to eliminate the conditions causing or contributing to an exceedance of an applicable water quality standard is not a grace period; compliance with the requirements of Section 2.1.1.c does not excuse or otherwise constitute a defense to a violation of Section 2.1.1.a.

2.2 Discharges to Water Quality Impaired Waters

The permittee shall identify in the SWMP and Annual Reports all discharges, including both outfalls and interconnections to other MS4 or other separate storm sewer systems, that:

- Are subject to an approved Total Maximum Daily Load (TMDL) as identified in Section 2.2.1; or
- Discharge to a water identified as impaired by the PREQB pursuant to Section 303(d) of the Clean Water Act and for which TMDL development has been identified as necessary, but for which a TMDL has not yet been approved. (See Appendix E)

The outfall location from an interconnected storm sewer system discharge which is the discharge point at the receiving water body, shall be determined based on the receiving water of that outfall from this interconnected system. EPA or the PREQB may determine that additional waters shall be treated as “impaired” waters pursuant to Section 2.2 based on water quality or modeling information and shall notify the affected MS4 operators of any such determination.

2.2.1 Existing Discharge to an Impaired Water with an Approved TMDL

If the small MS4 discharges to an impaired water body (see Appendix E) with an approved TMDL, where stormwater has the potential to cause or contribute to the impairment, the permittee shall include in the SWMP controls targeting the pollutant(s) of concern along with any additional or modified controls required in the TMDL and this section.

The SWMP and required annual reports shall include information on implementing any focused controls required to reduce the pollutant(s) of concern as described below:

- a. **Targeted Controls**
The SWMP shall include a detailed description of all targeted controls to be implemented, such as identifying areas of focused effort or implementing additional Best Management Practices (BMPs) that will be implemented to reduce the pollutant(s) of concern in the impaired waters.
- b. **Measurable Goals**
For each targeted control, the SWMP shall include a measurable goal and an implementation schedule describing BMPs to be implemented during each year of the permit term.
- c. **Identification of Benchmark Goal**
The SWMP shall identify a benchmark goal (i.e. measurable goal) for the pollutant(s) of concern. The value of the benchmark shall be determined based on one of the following options:

- (1) If the MS4 is subject to a TMDL that identifies an aggregate Waste Load Allocation (WLA) for all permitted MS4 stormwater sources, then the SWMP shall identify such WLA as the benchmark. Where an aggregate WLA benchmark is used, all affected MS4 operators are jointly responsible for progress in meeting the benchmark goal and shall (jointly or individually) develop a monitoring/assessment plan as required in Section 2.2.1(f).
- (2) Alternatively, if multiple small MS4s are discharging into the same impaired water body with an approved TMDL, with an aggregate WLA for all permitted stormwater MS4s, then the MS4s shall combine or share efforts to determine an alternative sub-benchmark goal for the pollutant(s) of concern (e.g., bacteria) for their respective MS4. The SWMP shall clearly define this alternative approach and shall describe how the sub-benchmark goals would cumulatively support the aggregate WLA. Where an aggregate WLA benchmark has been broken into sub-benchmarks for individual MS4s, each permittee is only responsible for progress in meeting its WLA sub-benchmark goal.
- (3) If the small MS4 is subject to an individual WLA specifically assigned to that MS4, the benchmark goal shall be the assigned WLA. Where WLAs have been individually assigned, or where the small MS4 is the only regulated MS4 within the urbanized area that is discharging into the impaired watershed with an approved TMDL, the permittee is only responsible for progress in meeting its WLA benchmark goal.

d. Annual Report

The annual report shall include an analysis of how the selected BMPs have been effective in contributing to achieving the benchmark goal.

e. Impairment for Bacteria

If the pollutant of concern is bacteria, the permittee shall include focused BMPs addressing the below areas, as applicable, in the SWMP and implement as appropriate. If a TMDL Implementation Plan is available, the permittee may refer to the Implementation Plan BMPs. The SWMP and annual report shall include justification for not implementing a particular BMP included in the Implementation Plan or for not addressing the provisions set forth in Section 2.2.1(e)(1 - 5). Permittees shall not exclude BMPs associated with the minimum control measures required under 40 CFR § 122.34 from their list of proposed BMPs. Proposed BMPs shall be reviewed during the NOI and SWMP review and approval process.

The BMPs shall address the following:

(1) Sanitary Sewer Systems

- i. Make improvements to sanitary sewers;
- ii. Address lift station inadequacies;
- iii. Improve reporting of violations;

- iv. Strengthen controls; and
- v. Identify area without sanitary sewers where storm sewers are conveying sewage to the receiving waters.
- (2) On-site Sewage Facilities
 - i. Identify and address failing systems; and
 - ii. Address inadequate maintenance of On-Site Sewage Facilities (OSSFs).
- (3) Illicit Discharge and Dumping
 - Place additional effort to reduce waste sources of bacteria and other pollutants; for example, from septic systems, grease traps, and grit traps.
- (4) Animal Sources
 - Expand existing management programs to identify and target animal sources such as pet waste, horse stables, among others.
- (5) Residential Education
 - Increase focus to educate residents on:
 - i. Bacteria discharging from a residential site either during runoff events or directly;
 - ii. Fats, oils, and grease clogging sanitary sewer lines and resulting overflows;
 - iii. Decorative ponds; and
 - iv. Pet waste.
- f. Monitoring or Assessment of Progress
 - The permittee shall monitor or assess progress in achieving benchmark goals and determining the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and annual reports. In addition, the SWMP shall include methods to be used.
 - (1) The permittee shall use either of the following methods to evaluate progress towards the benchmark goal and improvements in water quality:
 - i. Evaluating Program Implementation Measures
 - The permittee shall evaluate and report progress towards the benchmark goal by describing the activities and BMPs implemented, by identifying the appropriateness of the identified BMPs, and by evaluating the success of implementing the measurable goals.
 - The permittee shall assess progress by using program implementation indicators, pursuant to Section 2.4.4 of the permit, such as: (1) number of sources identified or eliminated; (2) decrease in number of illegal dumping; (3) increase in illegal dumping reporting; (4) number of educational opportunities conducted; (5) reductions in SSOs; or, (6) increase in illegal discharge detection through dry weather screening, etc.; or
 - ii. Assessing Improvements in Water Quality
 - The permittee shall assess improvements in water quality by using available data for segment and assessment units of water bodies from

other reliable sources, or by proposing and justifying a different approach such as collecting additional instream or outfall monitoring data, etc. Data may be acquired from PREQB, local river authorities, partnerships, and/or other local efforts as appropriate.

- (2) Progress towards achieving the benchmark goal shall be reported in the annual report. Annual reports shall report the benchmark goal and the year(s) during the permit term that the MS4 conducted additional sampling or other assessment activities.

g. **Observing no Progress Towards the Benchmark Goal**

If, by the end of the third year from the date of authorization of coverage under the permit, the permittee observes no progress toward the benchmark goal either from program implementation or water quality assessments as described in Section 2.2.1(f), the permittee shall identify alternative focused BMPs that address new or increased efforts towards achieving the benchmark goal or, as appropriate, shall develop a new approach to identify the most significant sources of the pollutant(s) of concern and shall develop alternative focused BMPs for those (this may also include information that identifies issues beyond the MS4's control). These revised BMPs shall be included in the SWMP and discussed in subsequent annual reports.

Where the permittee originally used a benchmark based on an aggregated WLA, the permittee may combine or share efforts with other MS4s discharging to the same watershed to determine an alternative sub-benchmark goal for the pollutant(s) of concern for their respective MS4s, as described in Section 2.2.1(c)(2) above. Permittees shall document, in their SWMP for the next permit term, the proposed schedule for the development and subsequent adoption of alternative sub benchmark goals for the pollutant(s) of concern for their respective MS4s and associated assessment of progress in meeting those individual goals.

2.2.2 Existing Discharge to an Impaired Water without an Approved TMDL

The permittee shall also determine whether the permitted discharge is directly to one or more water quality impaired water bodies (see Appendix E) where a TMDL has not yet been approved by PREQB and EPA. If the permittee discharges directly into an impaired water body without an approved TMDL, the permittee shall perform the following activities:

a. **Discharging a Pollutant of Concern**

- (1) Within the first year following the date of authorization of coverage under the permit, the permittee shall determine whether the small MS4 may be a source of the pollutant(s) of concern by referring to the CWA Section 303(d) list and then determining if discharges from the MS4 would be likely to contain the pollutant(s) of concern at levels of concern.
- (2) If the permittee determines that the small MS4 may discharge the pollutant(s) of concern to an impaired water body without a TMDL, the permittee shall, no later

than two years following the date of authorization of coverage under the permit, ensure that the SWMP includes focused BMPs, along with corresponding measurable goals, that the permittee will implement, to reduce, the discharge of pollutant(s) of concern that contribute to the impairment of the water body.

- (3) In addition, no later than three years following the date of authorization of coverage under the permit, the permittee shall submit a notice of modification to amend the SWMP to include any additional BMPs to address the pollutant(s) of concern.

b. Impairment of Bacteria

Where the impairment is for bacteria, the permittee shall identify potential significant sources and develop and implement targeted BMPs for those sources. The permittee may implement the focused BMPs listed in Section 2.2.1(e) or proposed alternative BMPs as appropriate.

- c. The annual report shall include information on compliance with this section, including results of any sampling conducted by the permittee.

2.3 Stormwater Management Program (SWMP)

A SWMP shall be developed, implemented and enforced according to the requirements of Section 2.3 of this general permit, for stormwater discharges that reach waters of the U.S., regardless of whether the discharge is conveyed through a separately operated storm sewer system. The SWMP shall be developed, implemented and enforced to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA and the PRWQS.

Implementation of best management practices consistent with the provisions of their permit and SWMP constitutes compliance with the standard of reducing pollutants to the MEP and the permittee will be deemed to be in compliance with Section 2.3 of this permit. This permit does not extend any compliance deadlines set forth in the previous permit effective November 6, 2006 for those permittees who were authorized under that permit.

2.3.1 Developing a Stormwater Management Program

2.3.1.1 SWMP Development and Schedule

a. Existing regulated small MS4s

Permittees who were regulated under the 2006 Small MS4 General Permit (PRR040000), shall update and submit to the EPA an updated SWMP under this general permit along with the NOI for coverage. The NOI shall be submitted as required in Section 1.7.2 of this permit. The SWMP shall be submitted as required in Section 1.11. The permittee shall continue to operate under the conditions of the previous permit and existing SWMP until granted coverage under this general permit.

b. New regulated small MS4s

Operators of regulated small MS4s that were not required to obtain permit

coverage under the previous NPDES general permit PRR040000/PRR04000F, have 180 days from the authorization under the general permit or within 180 days of being designated as a regulated small MS4 to develop and submit their NOI and SWMP. If the UA maps are made available after the effective date of the general permit, MS4 operators have 180 days after the maps are published on the EPA Region 2 MS4 permitting web page to submit their NOI and SWMP.

c. **Implementation of the SWMP**

Existing small MS4 operators shall ensure full implementation of any new elements in the revised SWMP as soon as practicable, but no later than five years from the authorization under this permit. Previously regulated MS4 operators shall continue to implement elements in the existing approved SWMPs until granted coverage under this general permit, after which the revised SWMPs shall be implemented.

EPA may designate non regulated small MS4s. These shall achieve full implementation of the SWMP as soon as practicable, but no later than five years from designation. Based on the 2010 Decennial Census, newly regulated small MS4s must achieve full implementation of the SWMP as soon as practicable, but no later than five years from the authorization under this permit.

2.3.2 Content of the SWMP

At a minimum, the permittee shall include the following information in its SWMP:

- a. A measurable goal that includes the development of ordinances or other regulatory mechanisms providing the legal authority necessary to implement and enforce the requirements of this permit, including information on any limitations to the legal authority. These will be incorporated in a section or appendix of the document.
- b. A summary of written procedures describing how the permittee will implement the provisions in Sections 2.3 and 3.0 of this general permit.
- c. A description of Minimum Control Measures (MCM) with measureable goals, including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action for each MCM described in Section 2.4.1.

2.3.3 Legal Authority

- 2.3.3.1 Conventional small MS4s, as defined in Appendix A, such as municipalities
 - a. Within two years from the date of authorization of coverage under the permit, the permittee shall review and revise, if needed, its relevant ordinance(s) or other regulatory mechanism(s), or shall adopt a new ordinance(s) or other regulatory mechanism(s) that provide the permittee with adequate legal authority to control pollutant discharges into and from its small MS4 in order

coverage under the previous NPDES general permit PRR040000/PRR04000F, have 180 days from the authorization under the general permit or within 180 days of being designated as a regulated small MS4 to develop and submit their NOI and SWMP. If the UA maps are made available after the effective date of the general permit, MS4 operators have 180 days after the maps are published on the EPA Region 2 MS4 permitting web page to submit their NOI and SWMP.

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Existing small MS4 operators shall ensure full implementation of any new elements in the revised SWMP as soon as practicable, but no later than five years from the authorization under this permit. Previously regulated MS4 operators shall continue to implement elements in the existing approved SWMPs until granted coverage under this general permit, after which the revised SWMPs shall be implemented.

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- b. A summary of written procedures describing how the permittee will implement the provisions in Sections 2.3 and 3.0 of this general permit.
- c. A description of Minimum Control Measures (MCM) with measureable goals, including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action for each MCM described in Section 2.4.1.

2.3.3 Legal Authority

- 2.3.3.1 Conventional small MS4s, as defined in Appendix A, such as municipalities
 - a. Within two years from the date of authorization of coverage under the permit, the permittee shall review and revise, if needed, its relevant ordinance(s) or other regulatory mechanism(s), or shall adopt a new ordinance(s) or other regulatory mechanism(s) that provide the permittee with adequate legal authority to control pollutant discharges into and from its small MS4 in order

- to meet the requirements of this general permit.
- b. To be considered adequate, this legal authority must, at a minimum, address the following:
 - i. Authority to prohibit illicit discharges and illicit connections;
 - ii. Authority to respond to and contain other releases – Control the discharge of spills, and prohibit dumping or disposal of materials other than stormwater and allowable non-stormwater, pursuant to Section 1.4, into the small MS4;
 - iii. Authority to require compliance with conditions in the permittee's ordinances, permits, contracts, or orders;
 - iv. Authority to require installation, implementation, and maintenance of control measures;
 - v. Authority to receive and collect information, such as stormwater plans, inspection reports, and other information deemed necessary to assess compliance with this permit, from operators of construction sites, new or redeveloped land, and industrial and commercial facilities;
 - vi. Authority, as needed, to enter and inspect private property including facilities, equipment, practices, or operations related to stormwater discharges to the small MS4;
 - vii. Authority to respond to violations of the BMPs required by the small MS4;
 - viii. Authority to assess penalties, including monetary, civil, or criminal penalties; and
 - ix. Ability to enter into interagency or interlocal agreements, as necessary
 - c. If the permittee does not have inspection or enforcement authority and is unable to meet the goals of this general permit authority, then, unless otherwise stated in this general permit, the permittee shall perform the following actions in order to meet the goals of the permit:
 - i. Enter into interlocal agreements with municipalities where the small MS4 is located. These interlocal agreements must state the extent to which the municipality will be responsible for inspections and enforcement authority in order to meet the conditions of this general permit; or
 - ii. If it is not feasible for the permittee to enter into interlocal agreements, the permittee shall notify an adjacent MS4 operator with enforcement authority or EPA as needed, to report discharges or incidents that it cannot itself enforce against. In determining feasibility for entering into interlocal agreements, the permittee shall consider all factors, including, without limitation, financial considerations and the willingness of the municipalities in which the small MS4 is located.

- 2.3.3.2 Non-conventional small MS4s, as defined in Appendix A, include public universities, department of transportation (DOT), local sewer districts, federal facilities (e.g., hospitals, military installations) and other public State or local entities that own and operate a storm sewer system and/or stormwater pump stations.
- a. Within two years from the date of authorization of coverage under the permit,

the permitted non-conventional MS4 shall review and revise, if needed, its relevant ordinance(s) or other regulatory mechanism(s), or shall adopt a new ordinance(s) or other regulatory mechanism(s) that provide the permittee with adequate legal authority to control pollutant discharges into and from its Non-conventional small MS4 in order to meet the requirements of this general permit.

- b. Some non-conventional MS4s may have limited legal authority or employ a different type of enforcement mechanism than a city/county/municipality government to implement a SWMP component.

Note: For example, a State DOT may not have the legal authority to enforce controls on illicit discharges into its system. Where the permittee lacks the authority to develop ordinances or to implement enforcement actions, the permittee shall exert compliance authority, either by contract, standard operating procedures (SOP) or memorandum of agreement, as required by this general permit for its facilities, employees, contractors, and any other entity over which it has operational control within the portion of the urbanized area under the jurisdiction of the permittee. For discharges from third party actions, the permittee shall perform inspections and exert enforcement authority to the MEP.

- c. If the permittee does not have inspection or enforcement authority and is unable to meet the goals of this general permit authority, then, unless otherwise stated in this general permit, the permittee shall perform the following actions in order to meet the goals of the permit:
 - i. Enter into interlocal agreements with municipalities where the small MS4 is located. These interlocal agreements must state the extent to which the municipality will be responsible for inspections and enforcement authority in order to meet the conditions of this general permit; or,
 - ii. If it is not feasible for the permittee to enter into interlocal agreements, the permittee shall notify an adjacent MS4 operator with enforcement authority or EPA as needed, to report discharges or incidents that it cannot itself enforce against. In determining feasibility for entering into interlocal agreements, the permittee shall consider all factors, including, without limitation, financial considerations and the willingness of the municipalities in which the small MS4 area is located.

2.3.4 Resources

It is the permittee's responsibility to ensure that it has adequate resources and funding to implement the requirements of this permit.

2.3.5 Enforcement Measures and Tracking

Permittees with enforcement authority (i.e. conventional small MS4s) shall develop a standard operating procedure (SOP) to respond to violations to the extent allowable under Commonwealth of Puerto Rico and local law. When the permittee does not have enforcement authority over the violator, and the violations continue after the violator has been notified of the violation by the permittee, the permittee shall notify the adjacent MS4 operator with enforcement authority or the EPA and the PREQB and maintain documentation of such notification.

2.4 Requirements to Reduce Pollutants to the Maximum Extent Practicable (MEP)

The permittee shall reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), as set forth in Sections 2.4.2 through 2.4.7.

2.4.1 Control Measures

- a. Permittees authorized under the 2006 Small MS4 General Permit shall continue to implement their existing SWMPs while updating their SWMPs pursuant to this permit. This permit does not extend the compliance deadlines set forth in the 2006 Small MS4 General Permit.
- b. Implementation of one or more of the minimum control measures described in Sections 2.4.2-2.4.7 or other permit requirements may be shared with another entity (including another interconnected MS4) or the other entity may fully implement the measure or requirement, if the following requirements are satisfied:
 - The other entity, in fact, implements the control measure.
 - The particular control measure or component thereof undertaken by the other entity is at least as stringent as the corresponding permit requirement.
 - The other entity agrees to implement the control measure on the permittee's behalf. The annual reports must specify that the permittee is relying on another entity to satisfy some of its permit obligations and specify what those obligations are.
 - If the permittee is relying on another governmental entity regulated under 40 CFR Part 122 to satisfy all of its permit obligations, including the obligation to file annual reports, the permittee shall note that fact in its NOI, but is not required to file annual reports.
 - The permittee remains responsible for compliance with all permit obligations if the other entity fails to implement the control measures (or components thereof) or fails to submit the required reports. The permittee may enter into a legally binding agreement with the other entity regarding the other entity's performance of control measures, but the permittee remains ultimately responsible for permit compliance.

2.4.2 Public Education and Outreach

The permittee shall implement an education program that includes educational goals based on stormwater issues of significance within the small MS4 area. The program shall include a focus on pollutants of concern for impaired and TMDL waters and priority waters that receive a discharge from the MS4. Priority waters include beaches, sensitive waterbodies, fishing areas, and drinking water supplies. The ultimate objective of a public education program is to increase knowledge and change behavior of the public so that pollutants in stormwater are reduced.

2.4.2.1 The permittee shall continue to implement the public education program required by the 2006 Small MS4 General Permit by distributing educational material to the MS4 community. The educational program shall define educational goals, express specific messages, define the targeted audience for each message, and identify responsible parties for program

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The permittee shall reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), as set forth in Sections 2.4.2 through 2.4.7.

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 - The other entity, in fact, implements the control measure.
 - The particular control measure or component thereof undertaken by the other entity is at least as stringent as the corresponding permit requirement.
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 - The permittee remains responsible for compliance with all permit obligations if the other entity fails to implement the control measures (or components thereof) or fails to submit the required reports. The permittee may enter into a legally binding agreement with the other entity regarding the other entity's performance of control measures, but the permittee remains ultimately responsible for permit compliance.

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2.4.2.1 The permittee shall continue to implement the public education program required by the 2006 Small MS4 General Permit by distributing educational material to the MS4 community. The educational program shall define educational goals, express specific messages, define the targeted audience for each message, and identify responsible parties for program

implementation. If appropriate for the target audience, materials may be developed in a language other than English. At a minimum, the permittee shall develop, implement, and maintain a comprehensive stormwater education and outreach program to educate public employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges can have on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater.

Existing permittees shall assess program elements that are described in its existing SWMP, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term. Newly regulated permittees shall fully implement their program by the end of this permit term. The program shall, at a minimum:

- a. Define the goals and objectives of the program based on high priority community-wide issues (for example, reduction of fecal coliform in discharges from the small MS4, promoting previous techniques used in the small MS4, or improving the quality of discharges to impaired water body of Appendix E) ;
- b. Identify the target audience(s);
- c. Develop or utilize appropriate educational materials, such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, and websites;
- d. Determine cost effective and practical methods and procedures for distribution of materials.

2.4.2.2 Throughout the permit term, all permittees shall make the educational materials available to convey the program's message to the target audience(s) at least annually.

2.4.2.3 All permittees shall review and update as necessary, the SWMP and MCM implementation procedures required by Section 2.3.2. Any changes must be reflected in the annual report. Such written procedures must be maintained, either on site or in the SWMP and made available for inspection by the EPA.

EPA has developed educational materials on environmental topics for the public and communities that are available at: <http://cfpub.epa.gov/npstbx/index.html> and <http://espanol.epa.gov>.

2.4.2.4 MS4 operators may partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach.

2.4.3 Public Involvement

All permittees shall involve the public, and comply with any Commonwealth of Puerto Rico and local public notice requirements, in the planning and implementation activities related to developing and implementing the SWMP, except that correctional facilities are not required to implement this portion of the MCM.

Existing permittees shall assess program elements that are described in the existing SWMP,

modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term. Newly regulated permittees shall fully implement their program by the end of this permit term. All permittees shall:

- a. Where feasible, consider using public input (for example, the opportunity for public comment, or public meetings) in the implementation of the program;
- b. Where feasible, create opportunities for citizens to participate in the implementation of control measures, such as stream clean-ups, storm drain stenciling, volunteer monitoring, volunteer "Adopt-A-Stream" programs, volunteer "Adopt-A-Road" programs and educational activities;
- c. Ensure the public can easily find information about the SWMP.

2.4.3.1 All public involvement activities shall comply with the Commonwealth of Puerto Rico and local public notice requirements. The SWMP (consistent with Section 1.11.1) and all annual reports shall be available to the public. The permittee is encouraged to satisfy this requirement by posting records online.

2.4.3.2 The permittee shall annually provide the public an opportunity to participate in the review and implementation of the SWMP

2.4.3.3 The permittee shall report on the activities undertaken to provide public participation opportunities including compliance with Section 2.4.3.1. Public participation opportunities pursuant to Section 2.4.3.2 may include, but are not limited to, websites; hotlines; clean-up teams; monitoring teams; or an advisory committee.

2.4.4 Illicit Discharge Detection and Elimination (IDDE) Program

All permittees shall develop, implement and enforce a program to detect, investigate, and eliminate illicit discharges into the small MS4. The program shall include a plan to detect and address non-allowable non-stormwater discharges, including illegal dumping to the MS4 system. In such a matter, the permittee shall implement an IDDE program to systematically find and eliminate sources of non-allowable non-stormwater from the MS4 and to implement procedures to prevent illicit connections and discharges.

Existing permittees shall assess program elements that are described in the existing SWMP, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements must be fully implemented by the end of this permit term. Newly regulated permittees shall fully implement their program by the end of this permit term.

2.4.4.1 Definitions and Prohibitions - The permittee shall prohibit illicit discharges and sanitary sewer overflows (SSOs) to its MS4 and require removal of such discharges consistent with Sections 2.4.4.2 and 2.4.4.4 of this permit. An SSO is a discharge of untreated sanitary wastewater from a municipal sanitary sewer. An illicit discharge is any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except:

- a. discharges authorized under a separate NPDES permit that authorize a discharge to the

MS4 (discharges that are authorized under a municipal sewer system permit are considered illicit discharges if they are discharged to the MS4)

- b. non-stormwater discharges allowed by Section 1.4

2.4.4.2 Elimination of Illicit Discharges

- a. Illicit discharges to the MS4 are prohibited, and any such discharge violates this permit and remains a violation until eliminated.
- b. Upon detection of an illicit discharge, the permittee shall eliminate the illicit discharge as expeditiously as possible. The MS4 shall identify and notify all responsible parties for any such discharge and require immediate cessation of improper disposal practices in accordance with its legal authorities. Where elimination of an illicit discharge within 30 days of its identification as an illicit discharge is not possible, the permittee shall establish an expeditious schedule for its elimination and report the dates of identification and schedules for removal in the permittee's annual reports. The permittee shall immediately commence actions necessary for elimination. The permittee shall diligently pursue elimination of all illicit discharges. In the interim, the permittee shall take all reasonable and prudent measures to minimize the discharge of pollutants to its MS4.
- c. The period between identification and elimination of an illicit discharge is not a grace period, and an illicit discharge to the MS4 remains a violation of the permit until eliminated.

2.4.4.3 Non-Stormwater Discharges

If the permittee identifies any of the sources of non-stormwater listed in Section 1.4 as significant contributors of pollutants to the MS4, then the permittee shall implement measures to control these sources so they are no longer significant contributors of pollutants, and/or eliminate them entirely, consistent with Section 2.4.4.

2.4.4.4 Sanitary Sewer Overflows (SSOs)

- a. Discharges from SSOs to the MS4 are prohibited and any such discharge violates this permit and remains a violation until eliminated. Upon detection, the permittee shall notify the Puerto Rico Aqueduct and Sewer Authority (PRASA) and any pertinent agency to collaborate and eliminate SSOs as expeditiously as possible and shall take interim mitigation measures to minimize the discharge of pollutants to and from its MS4 until elimination is completed. In addition, the MS4 shall also coordinate and implement with PRASA and any pertinent agency cleanup measures to minimize impacts to human health and the environment associated with the SSO.

Note: The permittee may want to contact PRASA as they may provide assistance in gathering SSO information.

- b. The permittee shall identify in its SWMP all known locations where SSOs have discharged to the MS4 within the previous five years. This shall include SSOs during dry or wet weather, from inadequate conveyance capacities, or where interconnectivity of the storm and sanitary sewer infrastructure allows for communication of flow between the systems. Within 120 days of the authorization under this permit, the permittee shall

develop an inventory of all identified SSOs indicating:

- Location (approximate street crossing/address and receiving water, if any);
- A clear statement of whether the discharge entered a surface water directly or entered the MS4;
- Date(s) and time(s) of each known SSO occurrence (i.e., beginning and end of any known discharge);
- Estimated volume(s) of the occurrence;
- Description of the occurrence indicating known or suspected cause(s);
- Mitigation and corrective measures completed with dates implemented; and
- Mitigation and corrective measures planned with implementation schedules.

The permittee shall maintain the inventory as a part of the SWMP and update the inventory at least annually.

- c. In accordance with Section B.12 of Appendix B of this permit, upon becoming aware of a SSO discharge to the MS4, the permittee shall provide oral notice to EPA and PRASA (787-620-2482) within 24 hours. Additionally, the permittee shall provide written notice to EPA and PRASA within five (5) days of becoming aware of the SSO occurrence and shall include the information in the updated inventory. The notice shall contain all of the information listed in 2.4.4.4.b.
- d. The permittee shall include and update the SSO inventory in its annual report, including the status of mitigation and corrective measures implemented by the permittee to address each SSO identified pursuant to this part.
- e. The period between identification and elimination of a discharge from the SSO to the MS4 is not a grace period, and such a discharge remains a violation of the permit until eliminated.

2.4.4.5 During the development of the new components of the IDDE program required by this permit, permittees authorized by the 2006 Small MS4 General Permit shall continue to implement their existing IDDE program required by the 2006 Small MS4 General Permit to detect and eliminate illicit discharges to its MS4.

2.4.4.6 System mapping

The permittee shall develop a revised and more detailed map than was required by the 2006 Small MS4 General Permit. This revised map of the MS4 shall be completed within three (3) years of the authorization under this permit. This permit does not provide additional time for completion of the mapping that was required by the 2006 Small MS4 General Permit.

- a. The mapping shall include a depiction of the permittee's separate storm sewer system in the permit area. The mapping is intended to facilitate the identification of key infrastructure and factors influencing proper system operation, and the potential for illicit sanitary sewer discharges. The map shall include the required infrastructure and water resources information as indicated in Section 2.4.4.6.a.i, and shall include the information in Section 2.4.4.6.a.ii where available. EPA also recommends the inclusion of additional

items as indicated in Section 2.4.4.6.a.iii.

- i. Required mapping elements
 - Municipal separate storm sewer system
 - outfalls and receiving waters (required by 2006 Small MS4 General Permit)
 - pipes
 - open channel conveyances (swales, ditches, etc)
 - catch basins
 - manholes
 - flood control pump stations
 - interconnections with other MS4s
 - municipally-owned stormwater treatment structures (e.g., detention and retention basins, infiltration systems, bioretention areas, water quality swales, gross particle separators, oil/water separators, or other proprietary systems)
 - Catchment delineations. For the purpose of this permit, a catchment is the area that drains to an individual outfall or interconnection, for use in priority rankings required in Section 2.4.4.8.c.
 - Waterbodies identified by name and indication of all use impairments as identified in the Commonwealth of Puerto Rico's most current 303(d) list.
 - ii. Elements required where available
 - Municipal sanitary sewer system;
 - Municipal combined sewer system, if applicable.
 - iii. Recommended elements
 - Storm sewer material, size and age
 - Sanitary sewer system material, size and age
 - Where a municipal sanitary sewer system exists, properties known or suspected to be served by a septic system, especially in high-density urban areas
 - Area where the permittee's MS4 has been or could be influenced by septic system discharges (e.g., areas with poor soils, or high ground water elevations unsuitable for conventional subsurface disposal systems)
 - Seasonal high water table elevations impacting sanitary alignments
 - Topography
 - Orthophotography (aerial photograph geometrically corrected such that the scale is uniform)
 - Alignments, dates and representation of work completed (with legend) of past illicit discharge investigations (e.g., flow isolation, dye testing, CCTV)
 - Locations of suspected, confirmed and corrected illicit discharges (with dates and flow estimates)
- b. The mapping may be produced by hand or through computer-aided methods (e.g. GIS). The required scale and detail of the map shall be appropriate to facilitate a rapid understanding of the system by the permittee and EPA. In addition, the mapping shall serve as a planning tool for the implementation and phasing of the IDDE program and

demonstration of the extent of complete and planned investigations and corrections. The permittee shall update the mapping as necessary to reflect newly discovered information and required corrections or modifications.

- c. The permittee shall report on the progress towards the completion of the map required by this permit in each annual report. It shall also provide an updated map, if applicable, along with the first annual report that is due following 2 years from the permit authorization date.

2.4.4.7 Outfall Inventory

The permittee shall develop an outfall and interconnection inventory that identifies each outfall and interconnection discharging from the MS4, records its location and condition, and provides a framework for tracking inspections, screenings and other activities under the permittee's IDDE program.

- a. An outfall means a point source as defined by 40 CFR § 122.2, and is the point where the municipal separate storm sewer discharges to waters of the United States. An outfall does not include open conveyances connecting two municipal separate storm sewers or pipes, tunnels or other conveyances that connect segments of the same stream or other waters of the United States and that are used to convey waters of the United States (40 CFR § 122.26(b)(9)). However, it is strongly recommended that a permittee inspect all accessible portions of the system as part of this process. Culverts longer than a simple road crossing shall be included in the inventory unless the permittee can confirm that they are free of any connections and simply convey waters of the United States.

An interconnection means the point where the permittee's MS4 discharges to another MS4 or other storm sewer system, through which the discharge is conveyed to waters of the United States or to another storm sewer system and eventually to a water of the United States.

- b. The permittee shall complete its outfall inventory no later than one (1) year from the authorization under this permit and shall include the inventory in each annual report. The inventory shall be updated annually to include data collected in connection with the dry weather screening under Section 2.4.4.8.d and other relevant inspections conducted by the permittee. The permittee shall physically label all MS4 outfall pipes (excluding interconnections) with their unique identifier within five (5) years after coverage under this permit.
- c. The inventory shall include the following information: unique identifier, receiving water, date of most recent inspection, dimensions, shape, material (concrete, PVC), spatial location (latitude and longitude with a minimum accuracy of +/-30 feet), physical condition and indicators of potential non-stormwater discharges (including presence or evidence of illicit connections, and sensory observations such as odor, color, turbidity, floatables, or oil sheen, field testing (e.g., ammonia strips, residual chlorine, surfactants tests, etc) and any sampling/laboratory analysis) as of the most recent inspection. See the Outfall Reconnaissance Inventory form in the IDDE manual.

2.4.4.8 Illicit Discharge Detection and Elimination Program

The IDDE program shall be documented in writing. The IDDE program shall include each of the elements described in Sections 2.4.4.8(a - h), unless the permittee provides a written explanation within the IDDE program as to why a particular element is not applicable to the permittee.

Notwithstanding the permittee's explanation, EPA may at any time determine that a particular element is in fact applicable to the permittee and require the permittee to add it to the IDDE program. The written IDDE program shall be completed within one (1) year of the authorization under this permit for existing permittees and three (3) years for new permittees. The permittee shall implement the IDDE program in accordance with the goals and milestones set forth in Section 2.4.4.9.

- a. Legal Authority - The IDDE program shall provide that the permittee has adequate legal authority to accomplish the following tasks: prohibit illicit discharges; investigate suspected illicit discharges; eliminate illicit discharges, including discharges from properties not owned by or controlled by the MS4 that discharge into the MS4 system; and implement appropriate enforcement procedures and actions. Adequate legal authority consists of a currently effective ordinance, by-law, or other regulatory mechanism. For permittees authorized by the 2006 Small MS4 General Permit, the ordinance, by-law, or other regulatory mechanism was a requirement of the 2006 Small MS4 General Permit and was required to be effective by November 6, 2011. The written IDDE program shall include a reference or citation of the authority the permittee will use to implement all aspects of the IDDE program.
- b. Statement of IDDE Program Responsibilities - The permittee shall establish a written statement that clearly identifies responsibilities with regard to eliminating illicit discharges. The statement shall identify the lead municipal agency(ies) or department(s) responsible for implementing the IDDE Program as well as any other agencies or departments that may have responsibilities for aspects of the program (e.g. board of health responsibilities for overseeing septic system construction; sanitary sewer system staff; inspectional services for enforcing plumbing codes; town counsel responsibilities in enforcement actions, among others). Where multiple departments and agencies have responsibilities with respect to the IDDE program specific areas of responsibility shall be defined and processes for coordination and data sharing shall be established and documented.
- c. Assessment and Priority Ranking of Catchments - The permittee shall assess and priority rank the catchments, delineated as required by Section 2.4.4.6.a.i, in terms of their potential to have illicit discharges and SSOs and the related public health significance. This ranking will determine the priority order for screening of outfalls and interconnections pursuant to Section 2.4.4.8.d, catchment investigations for evidence of illicit discharges and SSOs pursuant to Section 2.4.4.8.e, and provide the basis for determining permit milestones pursuant to Section 2.4.4.9.

- i. The permittee shall classify each catchment into one of the following categories:
- *Excluded catchments:* Catchments with no potential for illicit discharges may be excluded from the IDDE program. This category is limited to roadway drainage in undeveloped areas with no dwellings and no sanitary sewers; drainage for athletic fields, parks or undeveloped green space and associated parking without services; cross-country drainage alignments (that neither cross nor are in proximity to sanitary sewer alignments) through undeveloped land.
 - *Problem Catchments:* Catchments with known or suspected contributions of illicit discharges based on existing information shall be designated as Problem Catchments. Problem Catchments need not be screened pursuant to Section 2.4.4.8.d, and shall be scheduled for catchment investigation pursuant to Section 2.4.4.8.e.
 - *High Priority Catchments:* Catchments that have not been classified as Problem Catchments and are discharging to an area of concern to public health due to proximity of public beaches, recreational areas, drinking water supplies or coral reefs; catchments determined by the permittee as high priority based on outfall/interconnection screening under Section 2.4.4.8.d. or Section 3.3.1 and catchment characteristics assessment under Section 2.4.4.8.c.ii.

Any catchment where outfall/interconnection screening indicates sewer input based on olfactory/visual evidence or sampling results (ammonia ≥ 1 mg/l, ammonia to potassium ratio ≥ 1.0 , surfactants ≥ 0.25 mg/l, and bacteria levels greater than the water quality criteria applicable to the receiving water; or boron ≥ 0.35 mg/l, and detectable levels of chlorine) shall be ranked at the top of the High Priority Catchments category and scheduled for catchment investigation pursuant to Section 2.4.4.8.e.

Note: The 2004 IDDE Manual, subchapter 12.4, presents guidance on four techniques to interpret indicator parameter data.

- *Low Priority Catchments:* Catchments determined by the permittee as low priority based on outfall/interconnection screening under 2.4.4.8.d. and catchment characteristics assessment under Section 2.4.4.8.c.ii.
- ii. The permittee shall priority rank catchments within each category (except for excluded catchments), based on screening factors. The permittee shall, at a minimum, consider the following screening factors:
- Past discharge complaints and reports.
 - Poor dry weather receiving water quality- the following guidelines are recommended to identify waters as having a high illicit discharge potential: exceeding water quality standards for bacteria; ammonia levels greater or equal to 0.3 mg/l; total phosphorus levels greater than 0.40 mg/l; surfactants levels greater than or equal to 0.25 mg/l or boron greater than 0.35 mg/l, and total nitrogen levels greater than 3.5 mg/l.

Note: The 2004 IDDE Manual, subchapter 12.7, provides guidance on stream monitoring data indicators that help field crews locate individual discharges within a specific stream reach. There is information on the above parameter indicators and possible cause of water quality problem.

- Density of generating sites - Generating sites are those places, including institutional, municipal, commercial, or industrial sites, with a potential to generate pollutants that could contribute to illicit discharges. Examples of these sites include, but are not limited to, car dealers; car washes; gas stations; garden centers; and industrial manufacturing areas.
- Age of surrounding development and infrastructure – Industrial areas greater than 40 years old and areas where the sanitary sewer system is more than 40 years old will probably have a high illicit discharge potential. Developments 20 years or younger will probably have a low illicit discharge potential.
- Sewer conversion – Catchments that were once serviced by septic systems, but have been converted to sewer connections may have a high illicit discharge potential.
- Historic combined sewer systems – Catchments that were once serviced by a combined sewer system, but have been separated may have a high illicit discharge potential.
- Density of aging septic systems – Septic systems thirty years or older in residential land use areas are prone to have failures and may have a high illicit discharge potential.
- Culverted streams – any river or stream that is culverted for distances greater than a simple roadway crossing may be considered “high.”

The permittee may also consider as priorities for evaluation for illicit discharges, although not necessarily indicators of the presence of illicit connections or discharges:

- Water bodies that receive a discharge from the MS4 and are drinking water supplies, shell fishing areas, beaches or waters used for contact recreation.
- Impaired water bodies that receive a discharge from the MS4 or waters with approved TMDLs applicable to the permittee, where illicit discharges have the potential to contain the pollutant identified as the cause of impairment.

The permittee may add additional relevant factors, including location-specific screening factors; if so, the permittee shall include the additional factors in its written IDDE program.

- iii. An initial illicit discharge potential assessment and priority ranking based on existing information shall be completed within one (1) year from the authorization under this permit. The permittee shall update its assessment and priority ranking annually based on catchment delineations pursuant to Section 2.4.4.6, the results of screening pursuant to 2.4.4.8.d, and other new relevant information. The permittee shall provide a listing of all catchments and the results of the ranking for each catchment in each annual report. For each catchment being investigated, the permittee shall also provide in its annual report (1) a summary of evidence of known or suspected illicit discharges and SSOs; (2) completed, ongoing or planned corrective measures

addressing confirmed illicit discharges and SSOs; and (3) a schedule for completing and verifying measures correcting the confirmed illicit discharges and SSOs.

- d. Outfall and Interconnection Screening and Sampling – The IDDE program shall include a written procedure for screening and sampling of all outfalls and interconnections from the MS4 in dry and wet weather for evidence of illicit discharges and SSOs. This screening procedure shall be used for:
- baseline outfall and interconnection screening pursuant to 2.4.4.9.a (dry weather);
 - confirmatory screenings pursuant to 2.4.4.8.f (dry and/or wet weather depending on catchment characteristics);
 - follow-up screening pursuant to 2.4.4.8.g (dry and/or wet weather depending on catchment characteristics).
- i. The screening and sampling procedure shall include procedures for sample collection, use of field kits, storage and conveyance of samples (including relevant hold times) and relevant sample parameters (see IDDE Manual <https://www.epa.gov/npdes/npdes-stormwater-program>.)
- ii. If an outfall is inaccessible or submerged, the permittee shall proceed to the first accessible upstream manhole or structure for the observation and sampling and report the location with the screening results. If an interconnection is inaccessible or submerged, interconnection screening shall occur at the first accessible location within the permittee's system up gradient of the interconnection.
- iii. Dry weather screening and sampling shall proceed only when no more than 0.1 inches of rainfall has occurred in the previous 24-hour period. When a flow is observed, a sample of the flow shall be collected and analyzed for the parameters listed in 2.4.4.8.d.v. If no dry weather flow is observed, the permittee shall record the condition of the outfall and other relevant information (see Section 2.4.4.7). If no flow is observed, but evidence of dry weather flow exists, the permittee shall revisit the outfall during dry weather within one week of the initial observation, if practicable; to perform a second dry weather screening and sample any observed flow. The permittee shall identify in the annual report any other necessary follow-up actions to identify the source of any apparent intermittent flow not sampled.
- iv. Wet weather screening and sampling shall proceed during or after a storm event of sufficient depth or intensity to produce a stormwater discharge. The permit does not require a minimum rainfall event prior to wet weather screening. However, the purpose of wet weather screening and sampling under the IDDE program is to identify illicit discharges that may activate or become evident during wet weather. Permittees may incorporate provisions that assist in targeting such discharges, including avoiding sampling during the initial period of discharge ("first flush") and/or identifying minimum storm event intensities likely to trigger sanitary sewer interconnections.

- v. Samples shall be analyzed at a minimum for surfactants, ammonia, potassium, chlorine, conductivity, salinity, Enterococci, total coliform and fecal coliform (freshwater receiving water) or enterococcus and fecal coliform (saline or brackish receiving water), surfactants (such as MBAS), temperature, and any other pollutants pursuant to Section 3.3.1. All analyses with the exception of indicator bacteria and potentially surfactants can be performed with field test kits or field instrumentation. In addition, where the discharge is directly into an impaired water or is subject to an approved TMDL (see Appendix E), the sample shall be analyzed for the pollutants identified as the cause of the impairment.
- vi. Catchments where there is relevant information indicating sanitary sewer inputs to the MS4 or sampling results where ammonia ≥ 1.0 mg/l, surfactants ≥ 0.25 mg/l or boron >0.35 mg/l, and bacteria levels greater than the water quality criteria applicable to the receiving water shall be considered highly likely to contain illicit discharges from sanitary sources, and such catchments shall be ranked at the top of the High Priority Catchments category for investigation.
Note: Nearly every storm sewer that EPA has sampled in San Juan showed levels of bacteria in excess of the Water Quality Criteria.
- e. Catchment Investigation Procedure
The permittee shall develop a written systematic procedure for catchment investigation that includes (1) a review of mapping and historic plans and records for the catchment; (2) a manhole inspection methodology; and (3) procedures to isolate and confirm sources of illicit discharges, as set forth below:
- i. For each catchment being investigated, the permittee shall review relevant mapping and historic plans and records to the extent available, including but not limited to plans related to the construction of the storm drain and of sanitary sewers in the catchment, prior work performed on the storm drain or sanitary sewers, board of health or other municipal data on septic system failures or required upgrades, and complaint records related to SSOs including those reported by EPA, PREQB and PRASA, sanitary sewer surcharges, and septic system breakouts. This review shall be used to identify areas within the catchment with higher potential for illicit connections and System Vulnerability Factors that indicate a risk of sanitary or septic system inputs to the MS4 under dry and wet weather conditions. The permittee shall identify and record the presence of any of the following specific System Vulnerability Factors:
- History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages;
 - Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs;
 - Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints;
 - Common or twin-invert manholes serving storm and sanitary sewer alignments;

- v. Samples shall be analyzed at a minimum for surfactants, ammonia, potassium, chlorine, conductivity, salinity, Enterococci, total coliform and fecal coliform (freshwater receiving water) or enterococcus and fecal coliform (saline or brackish receiving water), surfactants (such as MBAS), temperature, and any other pollutants pursuant to Section 3.3.1. All analyses with the exception of indicator bacteria and potentially surfactants can be performed with field test kits or field instrumentation. In addition, where the discharge is directly into an impaired water or is subject to an approved TMDL (see Appendix E), the sample shall be analyzed for the pollutants identified as the cause of the impairment.
- vi. Catchments where there is relevant information indicating sanitary sewer inputs to the MS4 or sampling results where ammonia ≥ 1.0 mg/l, surfactants ≥ 0.25 mg/l or boron >0.35 mg/l, and bacteria levels greater than the water quality criteria applicable to the receiving water shall be considered highly likely to contain illicit discharges from sanitary sources, and such catchments shall be ranked at the top of the High Priority Catchments category for investigation.
Note: Nearly every storm sewer that EPA has sampled in San Juan showed levels of bacteria in excess of the Water Quality Criteria.
- e. Catchment Investigation Procedure
The permittee shall develop a written systematic procedure for catchment investigation that includes (1) a review of mapping and historic plans and records for the catchment; (2) a manhole inspection methodology; and (3) procedures to isolate and confirm sources of illicit discharges, as set forth below:
- i. For each catchment being investigated, the permittee shall review relevant mapping and historic plans and records to the extent available, including but not limited to plans related to the construction of the storm drain and of sanitary sewers in the catchment, prior work performed on the storm drain or sanitary sewers, board of health or other municipal data on septic system failures or required upgrades, and complaint records related to SSOs including those reported by EPA, PREQB and PRASA, sanitary sewer surcharges, and septic system breakouts. This review shall be used to identify areas within the catchment with higher potential for illicit connections and System Vulnerability Factors that indicate a risk of sanitary or septic system inputs to the MS4 under dry and wet weather conditions. The permittee shall identify and record the presence of any of the following specific System Vulnerability Factors:
- History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages;
 - Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs;
 - Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints;
 - Common or twin-invert manholes serving storm and sanitary sewer alignments;

- Common trench construction serving both storm and sanitary sewer alignments;
- Crossings of storm and sanitary sewer alignments;
- Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
- Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations;
- Areas formerly served by combined sewer systems;
- Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas;
- Widespread survey of septic system locations (indicative of inadequate soils, water table separation, near water bodies or other physical constraints of the area rather than poor owner maintenance);
- History of multiple Board of Health actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).

The permittee shall document the presence or absence of System Vulnerability Factors for each catchment, retain this documentation as part of its IDDE program, and report this information in Annual Reports. Where System Vulnerability Factors are present, the catchment shall be investigated pursuant to sections 2.4.4.8.e.ii(1) and 2.4.4.8.e.ii(2), below.

- ii. The manhole inspection methodology shall describe a storm drain network investigation that involves systematically and progressively observing, sampling (as required below) and evaluating key junction manholes (see definition in Appendix A) in the MS4 to narrow the location of suspected illicit discharges or SSOs to an isolated pipe segment between two manholes, locate evidence of illicit discharges or SSOs that may not be evident at the outfall under all circumstances, and confirm or identify potential system vulnerability factors. The permittee is responsible for selecting key junction manholes in a manner such that the distance between key junction manholes is appropriate to ensure a thorough assessment of its system.

The manhole inspection methodology may either start from the outfall and work up the system or start from the upper parts of the catchment and work down the system or be a combination of both practices. Either method shall, at a minimum, include an investigation of each key junction manhole within the MS4, even where no evidence of an illicit discharge is observed at the outfall. The Catchment Investigation Procedure must describe the method the permittee will use.

- (1) Dry weather investigation - Key junction manholes shall be opened and inspected for visual and olfactory evidence of illicit connections (e.g., excrement, toilet paper, gray filamentous bacterial growth, or sanitary products present). If flow is observed, the permittee shall sample the flow at a

minimum for ammonia, potassium, chlorine and surfactants and can use field kits for these analyses. Additional indicator sampling may assist in determining potential sources (e.g. bacteria for sanitary flows, conductivity to detect tidal backwater, etc.). Where sampling results or visual or olfactory evidence indicate potential illicit discharges or SSOs, the area draining to the junction manhole shall be flagged for further investigation, through upstream junction manhole investigation and/or isolation and confirmation of sources pursuant to 2.4.4.8.e.ii.

Manhole inspections in all areas shall also include identifying System Vulnerability Factors including common (twin invert) manholes, directly piped connections between storm drains and sanitary sewer infrastructure, common weir walls, sanitary sewer underdrain connections and other structural vulnerabilities where sanitary discharges could enter the storm drain system during wet weather. Where present, such System Vulnerability Factors shall be investigated pursuant to section (2), below.

- (2) Wet weather investigation – Where the review of mapping and historic plans and records and/or manhole inspections indicate the presence of one or more System Vulnerability Factors as listed in Section 2.4.4.8.e.i above, the permittee shall also inspect and sample under wet weather conditions to the extent necessary to determine whether wet weather-induced high flows in sanitary sewers or high groundwater in areas served by septic systems result in discharges of sanitary flow to the MS4. The permittee shall conduct at least one wet weather screening and sampling at the outfall for any catchment where one or more System Vulnerability Factors are present. This sampling can be done upon completion of any dry weather investigation but must be completed before catchment investigation is marked as complete. All data shall be recorded and reported in each annual report.
- iii. Isolation and Source Verification Procedures – The permittee shall develop procedures to be used to isolate and confirm sources where manhole investigations or other physical evidence or screening has identified MS4 alignments to be influenced by illicit discharges or SSOs. These shall include isolation of the drainage area for implementation of more detailed investigations, inspection of additional manholes along the alignment to refine the location of potential contaminant sources, and methods such as caulk dams, targeted internal plumbing inspections, dye testing, video inspections, or smoke testing to isolate and confirm the sources.
- f. Removal and Confirmation - When the source of an illicit discharge or SSO is identified and confirmed, the permittee shall exercise its authority as necessary to require its removal pursuant to Section 2.4.4.2 or 2.4.4.4. For each confirmed source the permittee shall include in the annual report the following information: the location of the discharge and its source(s); a description of the discharge; the method of discovery; the date of discovery; the date of elimination, mitigation or enforcement action; and estimate of the volume of flow removed.

minimum for ammonia, potassium, chlorine and surfactants and can use field kits for these analyses. Additional indicator sampling may assist in determining potential sources (e.g. bacteria for sanitary flows, conductivity to detect tidal backwater, etc.). Where sampling results or visual or olfactory evidence indicate potential illicit discharges or SSOs, the area draining to the junction manhole shall be flagged for further investigation, through upstream junction manhole investigation and/or isolation and confirmation of sources pursuant to 2.4.4.8.e.ii.

Manhole inspections in all areas shall also include identifying System Vulnerability Factors including common (twin invert) manholes, directly piped connections between storm drains and sanitary sewer infrastructure, common weir walls, sanitary sewer underdrain connections and other structural vulnerabilities where sanitary discharges could enter the storm drain system during wet weather. Where present, such System Vulnerability Factors shall be investigated pursuant to section (2), below.

- (2) Wet weather investigation – Where the review of mapping and historic plans and records and/or manhole inspections indicate the presence of one or more System Vulnerability Factors as listed in Section 2.4.4.8.e.i above, the permittee shall also inspect and sample under wet weather conditions to the extent necessary to determine whether wet weather-induced high flows in sanitary sewers or high groundwater in areas served by septic systems result in discharges of sanitary flow to the MS4. The permittee shall conduct at least one wet weather screening and sampling at the outfall for any catchment where one or more System Vulnerability Factors are present. This sampling can be done upon completion of any dry weather investigation but must be completed before catchment investigation is marked as complete. All data shall be recorded and reported in each annual report.
- iii. Isolation and Source Verification Procedures – The permittee shall develop procedures to be used to isolate and confirm sources where manhole investigations or other physical evidence or screening has identified MS4 alignments to be influenced by illicit discharges or SSOs. These shall include isolation of the drainage area for implementation of more detailed investigations, inspection of additional manholes along the alignment to refine the location of potential contaminant sources, and methods such as caulk dams, targeted internal plumbing inspections, dye testing, video inspections, or smoke testing to isolate and confirm the sources.
- f. Removal and Confirmation - When the source of an illicit discharge or SSO is identified and confirmed, the permittee shall exercise its authority as necessary to require its removal pursuant to Section 2.4.4.2 or 2.4.4.4. For each confirmed source the permittee shall include in the annual report the following information: the location of the discharge and its source(s); a description of the discharge; the method of discovery; the date of discovery; the date of elimination, mitigation or enforcement action; and estimate of the volume of flow removed.

Within one year of removal of all identified illicit discharge and SSO sources, confirmatory outfall or interconnection screening shall be conducted. The confirmatory screening shall be conducted in dry weather unless System Vulnerability Factors have been identified in the catchment pursuant to 2.4.4.8.e.i, in which case both dry weather and wet weather confirmatory screening shall be conducted. If confirmatory screening indicates evidence of additional illicit discharges, the catchment shall be scheduled for additional investigation. Confirmatory screening is not required in catchments where no illicit discharges or system vulnerability factors have been identified and no previous screening indicated suspicious flows.

- g. Follow-up Screening – Upon completion of catchment investigation pursuant to section e. and illicit discharge removal and confirmation (if necessary) pursuant to section f., the catchment outfall or interconnection shall be scheduled for follow-up screening within five years, or sooner, as determined by the permittee based on the catchment's illicit discharge priority. Follow-up screening shall consist of dry weather screening and sampling except that wet weather screening and sampling shall also be required in catchments where wet weather screening was required by Section 2.4.4.8.e.ii(2).
- h. Illicit Discharge Prevention Procedures - The permittee shall develop and implement mechanisms and procedures designed to prevent illicit discharges and SSOs, such as: spill response and prevention procedures including identification of spills; reporting procedures; containment procedures; documentation; and public awareness (this may be a part of the education program required by Section 2.4.2); reporting (hotlines); and training of public employees involved in the IDDE program on ways to identify potential illicit discharges and SSOs.

2.4.4.9 IDDE Program Implementation Milestones

The permittee shall implement the IDDE Program to meet the following goals and milestones:

- a. The permittee shall complete dry weather screening and sampling (where flowing) of every MS4 outfall and interconnection (except Excluded and Problem Catchments) no later than three years from the authorization under this permit. The permittee may rely on screening conducted under the 2006 Small MS4 General Permit, pursuant to an enforcement action, or by the State to the extent that it meets the requirements of Section 2.4.4.8. All data shall be reported in each annual report. Permittees that have conducted substantially equivalent monitoring to that required by Section 2.4.4.8.d as Section of an EPA enforcement action can request an exemption from the requirements of 2.4.4.8.d by submitting a written request to EPA and retaining exemption approval from EPA as part of the SWMP. Until the permittee receives formal written approval of the exemption from Section 2.4.4.8.d from EPA the permittee shall remain subject to all requirements of Section 2.4.4.8.d.
- b. The permittee shall begin the screening and sampling investigations using the procedure developed in accordance with Section 2.4.4.8.e. within three months of investigation

procedure finalization and no later than 15 months (1 year and 3 months) from the authorization under this permit and shall make continued progress each year toward meeting the milestones of section 2.4.4.9.c. below. In accordance with Section 2.4.4.5, the permittee shall continue investigation, including Problem Catchments, using its existing IDDE program until such time as the procedure under 2.4.4.8.d is developed.

- c. The permittee shall implement the Catchment Investigation Procedure in every catchment of the MS4, even where dry weather screening does not indicate evidence of illicit discharges. The permittee shall begin implementation of the procedure in Problem Catchments and those catchments with the highest ranking in the Assessment of Priority Catchments pursuant to 2.4.4.8.c. Implementation of the Catchment Investigation Procedure shall comply with the following milestones. For purposes of these milestones, a catchment investigation is considered complete if a permittee has completed all elements of 2.4.4.8.e.
 - i. The permittee shall complete the Catchment Investigation Procedure in a minimum of 80% of the MS4 area served by Problem Catchments within three years of the authorization under this permit and 100% of Problem Catchments within five years of the authorization under this permit.
 - ii. The permittee shall implement the Catchment Investigation Procedure in every catchment of the MS4 where information indicates sewer input including outfall/interconnection screening that indicates sewer input based on olfactory/visual evidence or sampling results (ammonia to potassium ratio ≥ 1.0 , surfactants ≥ 0.25 mg/l, and bacteria levels greater than the water quality criteria applicable to the receiving water; or ammonia ≥ 1.0 mg/l, surfactants ≥ 0.25 mg/l or boron ≥ 0.35 mg/l, and detectable levels of chlorine) within five (5) years of the authorization under this permit.
 - iii. The permittee shall complete the Catchment Investigation Procedure in 40% of the area served by all MS4 catchments within five (5) years of the authorization under this permit, and in 100% of the area served by all MS4 catchments within ten (10) years of the authorization under this permit. The permittee may count the area of low priority catchments in calculating the percentages only if the Catchment Investigation has been started in all other MS4 catchments (i.e., High Priority, Problem and Excluded Catchment). For the purposes of this Section, catchment investigations that have been started include those where provisions of Section 2.4.4.8.e.i-ii have been completed.
- d. Where catchments do not contain junction manholes, the dry weather screening and sampling shall be considered as meeting the manhole inspection requirement. In these catchments dry weather screenings that indicate potential presence of illicit discharges shall be further investigated pursuant to 2.4.4.8.e.iii. Investigations in these catchments may be considered complete where dry weather screening reveals: no flow, no evidence of illicit discharges or SSOs is indicated through sampling results or visual or olfactory means, and no wet weather System Vulnerability Factors are identified.

- e. The permittee shall track progress towards these milestones in each annual report.

2.4.4.10 Indicators of IDDE Program Progress

The permittee shall define or describe indicators for tracking program success. At a minimum, indicators shall include measures that demonstrate efforts to locate illicit discharges, the number of SSOs and illicit discharges identified and removed, the percentage and area in acres of the catchment area served by the MS4 evaluated using the catchment investigation procedure, and volume of sewage removed. The permittee shall evaluate and report the overall effectiveness of the program based on the tracking indicators in the annual report.

2.4.4.11 IDDE Training

The permittee shall, at a minimum, annually provide training to employees involved in IDDE program. Such training should be about the program, including how to recognize illicit discharges and SSOs. The permittee shall report on the frequency and type of employee training in the annual report.

2.4.5 Construction Site Stormwater Runoff Control

All permittees shall develop, implement and enforce a program requiring operators of small and large construction activities, as defined in Appendix A (Definitions) of this general permit, to select, install, implement, and maintain stormwater control measures that prevent illicit discharges to the MEP. The program shall include the development and implementation of an ordinance or other regulatory mechanism, as well as sanctions to ensure compliance to the extent allowable under Commonwealth of Puerto Rico and/or local law, to require erosion and sediment control.

Existing permittees shall assess program elements that are described in the existing SWMP, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP. New elements shall be fully implemented by the end of this permit term. Newly regulated permittees shall fully implement the program by the end of this permit term.

- 2.4.5.1 Permittees shall implement and enforce a program to reduce pollutants in any stormwater runoff discharged to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. The permittee's program shall include disturbances less than one acre if that disturbance is part of a larger common plan of development or sale that would disturb one acre or more. Permittees authorized under the 2006 Small MS4 General Permit shall continue to implement their existing programs and shall modify them as necessary to meet the requirements of this Construction Site Stormwater Runoff Control Section.

- 2.4.5.2 The permittee does not need to apply its construction program requirements to projects that receive a waiver from EPA under the provisions of 40 CFR § 122.26(b)(15)(i).

2.4.5.3 The construction site stormwater runoff control program shall include the elements in Sections a. through j. of this Section:

- a. An ordinance or other regulatory mechanism that requires the use of sediment and erosion control practices at construction sites. Development of an ordinance or other regulatory mechanism was a requirement of the 2006 Small MS4 General Permit (see Section 4.2.4.1.1 of the 2006 permit) and was required to be effective by November 6, 2011.
- b. Requirements for construction operators to implement a sediment and erosion control program to the extent allowable by Commonwealth of Puerto Rico and federal law. The program shall include BMPs appropriate for the conditions at the construction site. The program may include references to BMP design standards in PREQB manuals or design standards specific to the MS4. EPA supports and encourages the use of design standards in local programs. Examples of appropriate sediment and erosion control measures for construction sites include local requirements to:
 - i. Minimize the amount of disturbed area and protect natural resources;
 - ii. Stabilize sites when projects are complete or operations have temporarily ceased;
 - iii. Protect slopes on the construction site;
 - iv. Protect all storm drain inlets and armor all newly constructed outlets;
 - v. Use perimeter controls at the site;
 - vi. Stabilize construction site entrances and exits to prevent off-site tracking; and
 - vii. Inspect stormwater controls at consistent intervals.
- c. Requirements to control wastes and prohibit discharges, into the MS4, including but not limited to:
 - i. Wastewater from washout of concrete and wastewater from water well drilling operations, unless managed by an appropriate control;
 - ii. Wastewater from washout and cleanout of stucco, paint, from release oils, and other construction materials;
 - iii. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
 - iv. Soaps or solvents used in vehicle and equipment washing; and
 - v. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by appropriate BMPs.
- d. Construction plan review procedures. To the extent allowable by the Commonwealth of Puerto Rico and local law, permittees must maintain and implement site plan review procedures that describe which plans will be reviewed as well as when an operator may begin construction. If not already existing, the procedure for site plan review shall be completed within one (1) year from the authorization under this permit. Site plan review shall include a review by the permittee of the site design, the planned operations at the construction site, planned BMPs during the construction phase, and the planned BMPs to be used to manage runoff created after development. For those permittees without legal authority to enforce site plan reviews, this requirement is limited to those sites operated

by the permittee and its contractors and located within the permittee's regulated area. The review procedure must incorporate the following requirements:

- i. The site plan review procedures must incorporate consideration of potential water quality impacts;
 - ii. The permittee shall not approve any plans unless the plans contain appropriate site specific construction site control measures that, at a minimum, meet the requirements described in Appendix A (Definition) of the current NPDES CGP and Puerto Rico's Sediment and Erosion Control Plan (SEC Plan); and
 - iii. The permittee may require and accept a plan, such as a stormwater pollution prevention plan (SWPPP), which has been developed pursuant to the current CGP, and SEC Plan.
- e. Procedures for pre-construction review. To the extent allowable by the Commonwealth of Puerto Rico and local law, permittees must maintain and implement pre-construction review procedures that describe which environmental requirements for the construction project are applicable, including the environmental permits, as well as to establish the responsible party (e.g., owner, developer, contractor, among others) of the construction project. If not already existing, the procedure for pre-construction review shall be completed within one (1) year from the authorization under this permit. Site plan review shall include a review by the permittee of the required construction related permits, site design size, stormwater discharges, the planned operations design at the construction site, planned BMPs design during the construction phase, and the planned BMPs design to be used to manage runoff created after development. For those permittees without legal authority to enforce site plan reviews, this requirement is limited to those site operated by the permittee and its contractors and located within the small MS4 area. The review procedure must incorporate the following requirements:
 - i. Determine which permit(s) is/(are) required and who is responsible.
 - ii. Determine the permitting authority/(ies).
 - iii. Submittal of a Notice of Intent or equivalent application.
 - iv. The development of a stormwater pollution prevention plan.
 - v. Determination of the receiving waters coverage for Total Maximum Daily Loads (TMDLs) when applicable.
 - vi. Determine compliance with Endangered Species Act and National Historic Preservation Act requirements when applicable.
- f. Construction Site Inspections and Enforcement. To the extent allowable by the Commonwealth of Puerto Rico and local law, all permittees shall implement written procedures for inspecting large and small construction projects for sediment and erosion control measures. Development of procedures for site inspection and enforcement of control measures was a requirement of the 2006 Small MS4 General Permit (see Section 4.2.4.1.6 of the 2006 permit) and was required to be effective by November 6, 2011. If not already existing, these written procedures shall be developed and incorporated into the SWMP and reported within the next annual report from the authorization under this permit. Permittees without legal authority to inspect construction sites shall at a minimum conduct inspection of sites operated by the permittee or its contractors and that are located in the Small MS4 area.

- i. Inspections must occur at a frequency determined by the permittee, based on the evaluation of factors that are a threat to water quality, such as: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies; proximity to receiving waterbodies; non-stormwater discharges; and past records of non-compliance by the operators of the construction site.
- ii. Inspections must occur during the active construction phase:
 - (1) Determine whether the site has appropriate coverage under the current NPDES CGP, and PREQB SEC Plan. If no coverage exists, notify the permittee of the need for permit coverage.
 - (2) Conduct a thorough site inspection to determine if control measures have been selected, installed, implemented, and maintained according to the small MS4's requirements.
 - (3) Assess compliance with the permittee's ordinances and other regulations.
 - (4) Provide a written or electronic inspection report.
- iii. Based on site inspection findings, all permittees shall take all necessary follow-up actions (for example, follow-up-inspections or enforcement) to ensure compliance with permit requirements and the SWMP. These follow-up and enforcement actions must be tracked and maintained for review by the EPA and PREQB. This information shall be included as part of each annual report required by Section 3.4.

For non-conventional small MS4s with no enforcement authority, the permittee shall notify the adjacent MS4 operator with enforcement authority and the EPA and PREQB.

- g. Procedures for receipt and consideration of information submitted by the public.
- h. Site plan review procedures shall include evaluation of opportunities for use of low impact design and green infrastructure. If not already existing, these procedures shall be developed within one (1) year from the authorization under this permit. When the opportunity exists, the permittee shall encourage project proponents to incorporate these practices into the site design.
- i. MS4 Staff Training. Permittees shall ensure that all staff whose primary job duties are related to implementing the construction stormwater program (including permitting, plan review, construction site inspections, and enforcement) are informed or trained to conduct these activities. The training may be conducted by the permittee or by outside trainers.

2.4.5.4 Construction Site Inventory

Permittees shall maintain an inventory of all permitted active public and private construction sites, as notified to the small MS4 by submittal of copy of an NOI or a small construction site notice, that result in a total land disturbance of one or more acres or that result in a total land disturbance of less than one acre if part of a larger common plan or development or sale. The permittee shall make this inventory available to the permitting authority upon request.

2.4.6 Stormwater Management in New Development and Redevelopment

Permittees shall develop, implement and enforce a program, to the extent allowable under Commonwealth of Puerto Rico and local law, to control stormwater discharges from new development and redeveloped sites that discharge into the small MS4 that disturb one acre or more, including projects that disturb less than one acre that are part of a larger common plan of development or sale. The program must be established for private and public development sites. The program may utilize an offsite mitigation and payment in lieu of components to address this requirement.

Existing permittees shall assess program elements that are described in the existing SWMP, modify as necessary, to continue reducing the discharge of pollutants from the MS4 to the MEP and provide training to staff. The new development/redevelopment program shall include an ordinance or regulatory mechanism that regulates runoff from new development and redevelopment projects. Development of the ordinance or other regulatory mechanism was a requirement of the 2006 Small MS4 General Permit (See Section 4.2.5.1.3) and was required to be effective by November 6, 2011. Modifications shall be submitted within one (1) year from the authorization under this permit. New elements shall be implemented immediately after submitting to EPA. Newly regulated permittees shall fully implement the program within five (5) years after coverage under this permit.

2.4.6.1 Permittees shall use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under Commonwealth of Puerto Rico and local law and local development standards. The permittees shall establish, implement, and enforce a requirement, that owners or operators of new development and redeveloped sites design, install, implement, and maintain a combination of structural and non-structural BMPs appropriate for the community and to protect water quality. If the construction of permanent structures is not feasible due to space limitations, health and safety concerns, cost effectiveness, or highway construction codes, the permittee may propose an alternative approach to the permitting authority. Newly regulated permittees shall have fully implemented the program within five (5) years after coverage under this permit.

2.4.6.2 The new development/redevelopment program shall include projects less than one acre if the project is part of a larger common plan of development or redevelopment which disturbs one or more acres.

2.4.6.3 The permittee's new development/redevelopment program shall have procedures to ensure that any stormwater controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality. These procedures may also include requirements to avoid disturbance of areas susceptible to erosion and sediment loss; requirements to preserve areas in the municipality that provide important water quality benefits; requirements to implement measures for flood control; and requirements to protect the integrity of natural resources. If practicable, for new development or redevelopment projects greater than one acre, the program shall include a process to require the implementation of low impact development practices that infiltrate, evapotranspire, or

capture for reuse the first 1 inch of rainfall from a 24 hour storm preceded by 48 hours of no measurable precipitation.

2.4.6.4 All permittees shall include in the new development/redevelopment program the requirements described below in Sections 2.4.6.4.a–c:

- a. All permittees shall review and update as necessary, the SWMP and MCM implementation procedures required by Section 2.4.1. Any changes shall be reflected in the annual report. Such written procedures shall be maintained either on site or in the SWMP and be made available for inspection by the permitting authority.
- b. All permittees shall document and maintain records of enforcement actions and make them available for review by the permitting authority.
- c. Long-Term Maintenance of Post-Construction Stormwater Control Measures.
All permittees shall, to the extent allowable under the Commonwealth of Puerto Rico and local law, ensure the long-term operation and maintenance of structural stormwater control measures installed through one or both of the following approaches:
 - i. Maintenance performed by the permittee. See Section 2.4.7.
 - ii. Maintenance performed by the owner or operator of a new development or redeveloped site under a maintenance plan. The maintenance plan must be filed in the real property records of the Municipality in which the property is located. The permittee shall require the owner or operator of any new development or redeveloped site to develop and implement a maintenance plan addressing maintenance requirements for any structural control measures installed on site. The permittee shall require operation and maintenance performed to be documented and retained on site, such as at the offices of the owner or operator, and made available for review by the small MS4.

2.4.6.5 Inspections - Permittees shall develop and implement an inspection program to ensure that all post construction stormwater control measures are operating correctly and are being maintained as required consistent with its applicable maintenance plan. For small MS4s with limited enforcement authority, this requirement applies to the structural controls owned and operated by the small MS4 or its contractors that perform these activities within the small MS4's regulated area.

- a. Inspection Reports - The permittee shall document its inspection findings in an inspection report and make them available for review by the permitting authority.

2.4.6.6 The post-construction stormwater management in new development and redevelopment program shall include written procedures for Section 2.4.6.1 through 2.4.6.5.

2.4.7 Pollution Prevention and Good Housekeeping for Municipal Operations

Permittees shall develop and implement an operation and maintenance program, including an employee training component that has the ultimate goal of preventing or reducing pollutant runoff from municipal activities and municipally owned areas including but not limited to park and open space maintenance; street, road, or highway maintenance; fleet and building maintenance; stormwater system maintenance; new construction and land disturbances;

municipal parking lots; vehicle and equipment maintenance and storage yards; and waste transfer stations, among others.

Existing permittees shall assess program elements that were described in the existing SWMP, modify as necessary, and develop and implement new elements, as necessary, to continue reducing the discharges of pollutants from the MS4 to the MEP. Newly regulated permittees shall fully implement the program within five (5) years after coverage under this permit. See also Section 2.3.1.1.c.

2.4.7.1 Operations and Maintenance (O & M) Programs

Within one (1) year from the authorization under this permit, the permittee shall develop, if not already developed, written operations and maintenance procedures for the municipal activities listed below in Sections 2.4.7.1.a–c. These written O & M procedures shall be included as part of the SWMP as specified in Section 1.11.

The permittee shall develop an inventory of all facilities within six (6) months of the authorization under this permit. The permittee shall review this inventory annually and update as necessary. The permittee shall ensure staff training to meet developed procedures.

- a. Parks and open space: establish procedures to address the proper use, storage, and disposal of pesticides, herbicides, and fertilizers (PHF) including minimizing the use of these products and using them only in accordance with the manufacturer's instruction. Evaluate lawn maintenance and landscaping activities to ensure practices are protective of water quality. Protective practices include reduced use of PHFs, integrated pest management (IPM), recycling or proper disposal of lawn clippings and other vegetative waste, and use of native and drought resistant landscaping materials. Establish procedures for management of trash containers at parks (i.e., scheduled cleanings; sufficient number), and for placing signage in areas concerning the proper disposal of pet wastes.
- b. Buildings and facilities where pollutants are exposed to stormwater runoff: this includes schools (to the extent they are permittee-owned or operated), town offices, police, and fire stations, municipal pools and parking garages and other permittee-owned or operated buildings or facilities. Evaluate the use, storage, and disposal of petroleum products and other potential stormwater pollutants. Provide employee training as necessary so that those responsible for handling these products know proper procedures. Ensure that Spill Prevention Plans are in place, if applicable, and coordinate with the fire department as necessary. Develop management procedures for dumpsters and other waste management equipment. Sweep parking lots and keep areas surrounding the facilities clean to reduce runoff of pollutants.
- c. Vehicles and Equipment: establish procedures for the storage of permittee vehicles. Vehicles with fluid leaks shall be stored indoors or containment shall be provided until repaired. Evaluate fueling areas owned by the permittee or used by permittee vehicles. If possible, place fueling areas under cover in order to minimize exposure. Establish

procedures to ensure that vehicle wash waters are not discharged to the municipal storm sewer system or to surface waters. This permit does not authorize such discharges.

d. Infrastructure Operations and Maintenance

1. The permittee shall establish within one (1) year of the authorization under this permit a written program detailing the activities and procedures the permittee will implement so that the MS4 infrastructure is maintained in a timely manner to reduce the discharge of pollutants from the MS4. If the permittee has an existing program to maintain its MS4 infrastructure in a timely manner to reduce or eliminate the discharge of pollutants from the MS4, the permittee shall document the program in the SWMP.
2. The permittee shall optimize routine inspections, cleaning and maintenance of catch basins such that the following conditions are met:
 - i. Ensure that no catch basin sump shall be more than 50 percent full for any catch basins serving catchments draining to impaired waters where the pollutant of concern is sedimentation/siltation. If the majority of the waters are impaired, the permittee shall prioritize cleaning efforts based on the cause of the impairment and the potential for the MS4 to contribute to the impairment. The permittee shall document its prioritization in the SWMP.
 - ii. Prioritize inspection and maintenance for catch basins located near construction activities (roadway construction, residential, commercial, or industrial development or redevelopment). Clean catch basins in such areas more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings.
 - iii. Establish, for other catch basins, a schedule for the frequency of routine cleaning that will ensure that no catch basin at anytime will be more than 50 percent full.
 - iv. If a catch basin sump is more than 50 percent full during two consecutive routine inspections/cleaning events, the permittee shall document that finding, investigate the contributing drainage area for sources of excessive sediment loading, and to the extent practicable, abate contributing sources. The permittee shall describe any actions taken in its annual report.
 - v. For the purposes of this Section, an excessive sediment or debris loading is a catch basin sump more than 50 percent full. A catch basin sump is more than 50 percent full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin.
 - vi. The permittee shall document in the SWMP and in the first annual report its plan for optimizing catch basin cleaning, inspection plans, or its schedule for gathering information to develop the optimization plan. Documentation shall include metrics and other information used to reach the determination that the established plan for cleaning and maintenance is optimal for the MS4. The permittee shall keep a log of catch basins cleaned or inspected.
 - vii. The permittee shall report in each annual report the total number of catch basins, number inspected, number cleaned, and the volume or mass of

procedures to ensure that vehicle wash waters are not discharged to the municipal storm sewer system or to surface waters. This permit does not authorize such discharges.

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 - vii. The permittee shall report in each annual report the total number of catch basins, number inspected, number cleaned, and the volume or mass of

material removed from each catch basin draining to impaired waters and the total volume or mass of material removed from all catch basins.

3. The permittee shall establish and implement procedures for sweeping and/or cleaning streets, and permittee-owned parking lots. The procedures shall also include more frequent sweeping of targeted areas determined by the permittee on the basis of pollutant load reduction potential, based on inspections, pollutant loads, catch basin cleaning or inspection results, land use, impaired waters or other relevant factors as determined by the permittee. The permittee shall report in each annual report the number of miles cleaned and the volume or mass of material removed.

For uncurbed, limited access highways, the permittee shall either meet the minimum frequencies above, or develop and implement an inspection, documentation and targeted sweeping plan within one year of the authorization under this permit, and submit such plan with its year one annual report.

4. The permittee shall ensure proper storage of catch basin cleanings and street sweepings prior to disposal or reuse such that they do not discharge to receiving waters.
5. The permittee shall establish and implement inspection and maintenance frequencies and procedures for the storm drainage systems (including but not limited to storm sewers, pump station, siphons, outfalls, etc.) and for all stormwater treatment structures such as water quality swales, retention/detention basins, infiltration structures, proprietary treatment devices or other similar structures. All permittee-owned stormwater treatment structures (excluding catch basins) shall be inspected annually at a minimum.
6. The permittee shall report in the annual report on the status of the inventory required by this section and any subsequent updates; the status of the O&M programs for the permittee-owned facilities and activities in Sections 2.4.7.1.a–d. of this section; and the maintenance activities associated with each.
7. The permittee shall keep a written record of all required activities including but not limited to maintenance activities, inspections and training required by Section 2.4.7.1. The permittee shall maintain, consistent with Section 3.2.1, all records associated with maintenance and inspection activities required by Section 2.4.7.1.

2.4.7.2 Stormwater Pollution Prevention Plan (SWPPP)

The permittee shall develop and fully implement a SWPPP for each of the following conventional/non-conventional municipal operations including facilities such as maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater. If facilities are located at the same property, the permittee may develop one SWPPP for the entire property. The SWPPP is a separate and different document from the SWMP required in Section 1.11. A SWPPP does not need to be developed for a facility if the permittee has either already developed a SWPPP or received a no exposure certification for the discharge under the Multi-Sector General Permit or the discharge is authorized under another NPDES permit.

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7. The permittee shall keep a written record of all required activities including but not limited to maintenance activities, inspections and training required by Section 2.4.7.1. The permittee shall maintain, consistent with Section 3.2.1, all records associated with maintenance and inspection activities required by Section 2.4.7.1.

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a. No later than two (2) years from the authorization under this permit, the permittee shall develop and implement a written SWPPP for the facilities described above. The SWPPP shall be signed in accordance with the signatory requirements of Appendix B – Subsection 11.

b. The SWPPP shall contain the following elements:

i. Pollution Prevention Team

Identify the staff on the team, by name and title. If the position is unstaffed, the title of the position should be included and the SWPPP updated when the position is filled. The role of the team is to develop, implement, maintain, and revise, as necessary, the SWPPP for the facility.

ii. Description of the facility and identification of potential pollutant sources

The SWPPP shall include a map of the facility and a description of the activities that occur at the facility. The map shall show the location of the stormwater outfalls, receiving waters, and any structural controls. Identify all activities that occur at the facility and the potential pollutants associated with each activity including the location of any floor drains. These may be included as part of the inventory required by Section 2.4.7.1.

iii. Identification of stormwater controls

The permittee shall select, design, install, and implement the control measures detailed in section iv. below to prevent or reduce the discharge of pollutants from the permittee owned facility.

The selection, design, installation, and implementation of the control measures shall be in accordance with good engineering practices and manufacturer's specifications. The permittee shall also take all reasonable steps to control or address the quality of discharges from the site that may not originate at the facility.

If the discharge from the facility is to an impaired water and the facility has the potential to discharge the pollutant identified as causing the impairment, the permittee shall identify the control measures that will be used to address this pollutant at the facility so that the discharge does not cause or contribute to a violation of a water quality standard.

iv. The SWPPP shall include the following management practices:

Minimize or Prevent Exposure: The permittee shall to the extent practicable either locate materials and activities inside, or protect them with storm-resistant coverings in order to prevent exposure to rain and runoff (although significant enlargement of impervious surface area is not recommended). Materials do not need to be enclosed or covered if stormwater runoff from

affected areas will not be discharged directly or indirectly to surface waters or to the MS4 or if discharges are authorized under another NPDES permit.

Good Housekeeping: The permittee shall keep clean all exposed areas that are potential sources of pollutants, using such measures as: sweeping at regular intervals; ensure that trash containers are closed when not in use; keep storage areas well swept and free from leaking or damaged containers; and store leaking vehicles needing repair indoors.

Preventative Maintenance: The permittee shall regularly inspect, test, maintain, and repair all equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater to receiving waters. Inspections shall occur at a minimum once per quarter.

Spill Prevention and Response: The permittee shall minimize the potential for leaks, spills, and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur. At a minimum, the permittee shall have procedures that include:

- Preventive measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
- Response procedures that include notification of appropriate facility personnel, emergency agencies, and regulatory agencies, and procedures for stopping, containing, and cleaning up leaks, spills and other releases. Measures for cleaning up hazardous material spills or leaks shall be consistent with applicable Resource Conservation and Recovery Act (RCRA) regulations at 40 CFR §§ 264 and 265. Employees who may cause, detect, or respond to a spill or leak shall be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of the Pollution Prevention Team; and
- Contact information for individuals and agencies that shall be notified in the event of a leak, spill, or other release. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under 40 CFR §§ 110, 117, or 302, occurs during a 24-hour period, the permittee shall notify the National Response Center (NRC) at (800) 424-8802 and/or (202) 267-2675 in accordance with the requirements of 40 CFR §§ 110, 117, and 302 as soon as the permittee has knowledge of the discharge. Commonwealth of Puerto Rico or local requirements may necessitate reporting spills or discharges to local emergency, public health or drinking water supply agencies, and owners of public drinking water supplies. Contact information shall be in locations that are readily accessible and available.

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Erosion and Sediment Control: The permittee shall use structural and non-structural control measures at the facility to stabilize and contain runoff from exposed areas and to minimize or eliminate onsite erosion and sedimentation. Efforts to achieve this may include the use of flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion.

Management of Runoff: The permittee shall manage stormwater runoff from the facility to prevent or reduce the discharge of pollutants. This may include management practices which divert runoff from areas that are potential sources of pollutants, contain runoff in such areas, or reuse, infiltrate or treat stormwater to reduce the discharge of pollutants.

Employee Training: The permittee shall regularly train employees who work in areas where materials or activities are exposed to stormwater, or who are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance personnel), including all members of the Pollution Prevention Team. Training shall cover both the specific components and scope of the SWPPP and the control measures required under this Section, including spill response, good housekeeping, material management practices, any best management practice for operation and maintenance, etc. EPA recommends annual training.

The permittee shall document the following information for each training:

- The training date, title and training duration;
- List of municipal attendees;
- Subjects covered during training.

Maintenance of Control Measures: The permittee shall maintain all control measures, required by this permit in effective operating condition. The permittee shall keep documentation onsite that describes procedures and a regular schedule for preventative maintenance of all control measures and discussions of back-up practices in place should a runoff event occur while a control measure is off-line. Nonstructural control measures shall also be diligently maintained (e.g., spill response supplies available, personnel trained).

- v. The permittee shall conduct the following inspections:

Site Inspections: Inspect all areas that are exposed to stormwater and all stormwater control measures. Inspections shall be conducted at least once each calendar quarter. More frequent inspections may be required if significant activities are exposed to stormwater. Inspections shall be performed when the facility is in operation. At least one of the quarterly

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Maintenance of Control Measures: The permittee shall maintain all control measures, required by this permit in effective operating condition. The permittee shall keep documentation onsite that describes procedures and a regular schedule for preventative maintenance of all control measures and discussions of back-up practices in place should a runoff event occur while a control measure is off-line. Nonstructural control measures shall also be diligently maintained (e.g., spill response supplies available, personnel trained).

- v. The permittee shall conduct the following inspections:

Site Inspections: Inspect all areas that are exposed to stormwater and all stormwater control measures. Inspections shall be conducted at least once each calendar quarter. More frequent inspections may be required if significant activities are exposed to stormwater. Inspections shall be performed when the facility is in operation. At least one of the quarterly

inspections shall occur during a period when a stormwater discharge is occurring.

The permittee shall document the following information for each facility inspection:

- The inspection date and time;
- The name of the inspector;
- Weather information and a description of any discharge occurring at the time of the inspection;
- Identification of any previously unidentified discharges from the site;
- Any control measures needing maintenance or repair;
- Any failed control measures that need replacement;
- Any SWPPP changes required as a result of the inspection.

- vi. If during the inspections, or any other time, the permittee identifies control measures that need repair or are not operating effectively, the permittee shall repair or replace them before the next anticipated storm event if possible, or as soon as practicable following that storm event. In the interim, the permittee shall have back-up measures in place.

- c. The permittee shall report the findings from the Site Inspections in the annual report.
- d. The permittee must keep a written record of all required activities including but not limited to maintenance, inspections, and training required by Section 2.4.7.2. The permittee shall maintain all records associated with the development and implementation of the SWPPP required by this section consistent with the requirements of Section 3.2.1.

3.0 Program Evaluation, Recordkeeping, and Reporting

3.1 Program Evaluation

3.1.1 The permittee shall annually self-evaluate its compliance with the terms and conditions of this permit. The permittee shall maintain the annual evaluation documentation as part of the SWMP records.

3.1.2 The permittee shall evaluate the appropriateness of the selected BMPs in achieving the objectives of each control measure and the defined measurable goals. The permittee may change BMPs in accordance with the following provisions:

- Changes adding (but not subtracting or replacing) components or controls may be made at any time.
- Changes replacing an ineffective or infeasible BMP specifically identified in the SWMP with an alternative BMP may be made if the proposed changes meet the criteria of Section 3.1.3 and/or 3.1.4.

3.1.3 BMP modification documentation shall include the following information and all documentation shall be kept in the SWMP:

- An analysis of why the BMP is ineffective or infeasible;
- Expectations on the effectiveness of the replacement BMP; and
- An analysis of why the replacement BMP is expected to achieve the defined goals of the BMP to be replaced.

The permittee shall indicate BMP modifications along with a brief explanation of the modification in each Annual Report.

3.1.4 EPA or the PREQB may require the permittee to add, modify, repair, replace or change BMPs or other measures described in the annual reports as needed:

- To address impacts to receiving water quality caused or contributed to by discharges from the MS4;
- To satisfy conditions of this permit;
- To include more stringent requirements necessary to comply with new Commonwealth of Puerto Rico or federal legal requirements; or
- To include such other conditions deemed necessary to comply with the goals and requirements of the CWA.

Any changes requested by EPA or the PREQB will be in writing and will set forth the schedule for the permittee to develop the changes and will offer the permittee the opportunity to propose alternative program changes to meet the objective of the requested modification.

3.2 Recordkeeping

3.2.1 The permittee shall keep all records required by this permit for a period of at least five years. Records include information used in the development of any written program required by this permit, any monitoring results, copies of reports, records of screening, follow-up and elimination of illicit discharges; maintenance records; inspection records; and data used in the development of the notice of intent, SWMP, SWPPP, and annual reports. This list provides examples of records that should be maintained, but is not all inclusive.

3.2.2 Records other than those required to be included in the annual report, Section 3.4, shall be submitted only when requested by the EPA or the PREQB.

3.2.3 The permittee shall make the records relating to this permit, including the written stormwater management program, available to the public. The public may view the records during normal business hours. The permittee may charge a reasonable fee for copying requests. The permittee is encouraged to satisfy this requirement by posting records online.

3.3 Outfall Monitoring

3.3.1 The permittee shall monitor and sample its outfalls at a minimum through sampling and testing at the frequency and locations required in connection with IDDE screening under Section 2.4.4.8.d-g. and 2.4.4.9.

- i. IDDE screening shall include collection of grab samples and analysis of said samples for Enterococci and Fecal Coliform (for freshwater receiving waters) or Enterococcus and Fecal Coliform (for saline or brackish receiving waters). Bacteria, ammonia, surfactants, boron, and phosphorus analyses shall be conducted using the analytical methods found in 40 CFR § 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR § 136. Other IDDE screening parameters shall be considered field screening and are not subject to 40 CFR § 136 requirements, but must use methods and analysis that will yield results representative of the discharge.
- ii. If the discharge is directly into an impaired water, or if the discharge is subject to a waste load allocation in an approved TMDL as indicated in Appendix F, grab samples shall be collected concurrently with the IDDE investigation required by Section 2.4.4.8.e(b) and analyzed for the pollutants identified as the cause of the impairment which are subject to 40 CFR § 136 requirements. The required

Any changes requested by EPA or the PREQB will be in writing and will set forth the schedule for the permittee to develop the changes and will offer the permittee the opportunity to propose alternative program changes to meet the objective of the requested modification.

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3.2.2 Records other than those required to be included in the annual report, Section 3.4, shall be submitted only when requested by the EPA or the PREQB.

3.2.3 The permittee shall make the records relating to this permit, including the written stormwater management program, available to the public. The public may view the records during normal business hours. The permittee may charge a reasonable fee for copying requests. The permittee is encouraged to satisfy this requirement by posting records online.

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- i. IDDE screening shall include collection of grab samples and analysis of said samples for Enterococci and Fecal Coliform (for freshwater receiving waters) or Enterococcus and Fecal Coliform (for saline or brackish receiving waters). Bacteria, ammonia, surfactants, boron, and phosphorus analyses shall be conducted using the analytical methods found in 40 CFR § 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR § 136. Other IDDE screening parameters shall be considered field screening and are not subject to 40 CFR § 136 requirements, but must use methods and analysis that will yield results representative of the discharge.
- ii. If the discharge is directly into an impaired water, or if the discharge is subject to a waste load allocation in an approved TMDL as indicated in Appendix F, grab samples shall be collected concurrently with the IDDE investigation required by Section 2.4.4.8.e(b) and analyzed for the pollutants identified as the cause of the impairment which are subject to 40 CFR § 136 requirements. The required

pollutant analyses in connection with causes of impairment are provided in Appendix E.

- iii. The monitoring program may also include additional outfall and interconnection monitoring as determined by the permittee in connection with assessment of SWMP effectiveness pursuant to Section 3.1; evaluation of discharges to impaired waters pursuant to Section 2.2; assessment of BMP effectiveness pursuant to Section 2.2; or otherwise.

3.3.2 The permittee shall document all monitoring results each year in the annual report. The report shall include the date, outfall or interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results of all analyses. The annual report shall include all of this information and data for the current reporting period and for the entire permit period.

3.3.3 The permittee shall also include in the annual report results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period. If such monitoring or studies were conducted on behalf of the permittee, or if monitoring or studies conducted by other entities were reported to the permittee, a brief description of the type of information gathered or received shall be included in the annual report(s) covering the time period(s) the information was received.

3.4 Reporting

3.4.1 The permittee shall submit an annual report. The reporting period will be a one year period commencing on the authorization under this permit, and subsequent anniversaries thereof, except that the first annual report under this permit shall also cover the period from November 6, [of the last report] to the authorization under this permit. The annual report is due thirty days from the close of each reporting period.

The annual year period will be constituted as follow:

July 1, year of permit issuance (YPI) thru June 30, YPI + 1 year;
July 1, YPI + 1 year thru June 30, YPI + 2 year;
July 1, YPI + 2 year thru June 30, YPI + 3 year;
July 1, YPI + 3 year thru June 30, YPI + 4 year;
July 1, YPI + 4 year thru June 30, YPI + 5 year;

3.4.2 The annual reports shall contain the following information:

3.4.2.1 A self-assessment review of compliance with the permit terms and conditions.

3.4.2.2 An assessment of the appropriateness of the selected BMPs.

3.4.2.3 The status of any plans or activities required by Section 2.1 and/or Section 2.2, including:

- Identification of all discharges determined to be causing or contributing to an exceedance of water quality standards and a description of the response, including all items required by Section 2.1.1.c; and
- For discharges subject to TMDLs, identification of specific BMPs used to address the pollutant identified as the cause of impairment and assessment of the BMPs effectiveness at controlling the pollutant (Section 2.2.1).

3.4.2.4 An assessment of the progress towards achieving the measurable goals and objectives of each control measure in Section 2.4 including:

- Evaluation of the public education program including a description of the targeted messages for each audience; method of distribution and dates of distribution; methods used to evaluate the program; and any changes to the program.
- Description of the activities used to promote public participation including documentation of compliance with Commonwealth of Puerto Rico public notice regulations.
- Description of the activities related to implementation of the IDDE program including: status of the map; status and results of the illicit discharge potential ranking and assessment; identification of problem catchments; status of all protocols described in Sections 2.4.4. (program responsibilities and systematic procedure); number and identifier of catchments evaluated; number and identifier of outfalls screened; number of illicit discharges located; number of illicit discharges removed; gallons of flow removed; identification of tracking indicators and measures of progress based on those indicators; and employee training.
- Evaluation of the construction runoff management including number of project plans reviewed; number of inspections; and number of enforcement actions.
- Evaluation of stormwater management for new development and redevelopment including status of ordinance development and review; status of the street design assessment; and information on directly connected impervious area reductions.
- Status of the O&M Programs required by Section 2.4.7.1.
- Status of SWPPP required by Section 2.4.7.2 including inspection results.

3.4.2.5 All outfall screening and monitoring data collected by or on behalf of the permittee during the reporting period and cumulative for the permit term, including but not limited to all data collected pursuant to Sections 2.4.4 and 3.3. The permittee shall also provide a description of any additional monitoring data received by the permittee during the reporting period.

3.4.2.6 Description of activities for the next reporting cycle.

3.4.2.2 An assessment of the appropriateness of the selected BMPs.

3.4.2.3 The status of any plans or activities required by Section 2.1 and/or Section 2.2, including:

- Identification of all discharges determined to be causing or contributing to an exceedance of water quality standards and a description of the response, including all items required by Section 2.1.1.c; and
- For discharges subject to TMDLs, identification of specific BMPs used to address the pollutant identified as the cause of impairment and assessment of the BMPs effectiveness at controlling the pollutant (Section 2.2.1).

3.4.2.4 An assessment of the progress towards achieving the measurable goals and objectives of each control measure in Section 2.4 including:

- Evaluation of the public education program including a description of the targeted messages for each audience; method of distribution and dates of distribution; methods used to evaluate the program; and any changes to the program.
- Description of the activities used to promote public participation including documentation of compliance with Commonwealth of Puerto Rico public notice regulations.
- Description of the activities related to implementation of the IDDE program including: status of the map; status and results of the illicit discharge potential ranking and assessment; identification of problem catchments; status of all protocols described in Sections 2.4.4. (program responsibilities and systematic procedure); number and identifier of catchments evaluated; number and identifier of outfalls screened; number of illicit discharges located; number of illicit discharges removed; gallons of flow removed; identification of tracking indicators and measures of progress based on those indicators; and employee training.
- Evaluation of the construction runoff management including number of project plans reviewed; number of inspections; and number of enforcement actions.
- Evaluation of stormwater management for new development and redevelopment including status of ordinance development and review; status of the street design assessment; and information on directly connected impervious area reductions.
- Status of the O&M Programs required by Section 2.4.7.1.
- Status of SWPPP required by Section 2.4.7.2 including inspection results.

3.4.2.5 All outfall screening and monitoring data collected by or on behalf of the permittee during the reporting period and cumulative for the permit term, including but not limited to all data collected pursuant to Sections 2.4.4 and 3.3. The permittee shall also provide a description of any additional monitoring data received by the permittee during the reporting period.

3.4.2.6 Description of activities for the next reporting cycle.

3.4.2.7 Description of any changes in identified BMPs or measurable goals.

3.4.2.8 Description of activities undertaken by any entity contracted for achieving any measurable goal or implementing any control measure.

3.4.3 Reports must be submitted to EPA at the following address:

**United State Environmental Protection Agency
Caribbean Environmental Protection Division
Multimedia Permits and Compliance Branch
City View Plaza II, Suite 7000
48 Road 165 Km. 1.2
Guaynabo, Puerto Rico 00968-8069**

4.0 Non-Conventional MS4 - Commonwealth of Puerto Rico and Federal Facilities

Non-Conventional MS4 is a conveyance or system of conveyances that collects stormwater and are owned and operated by the Commonwealth of Puerto Rico and/or Federal government which are located within an urbanized area. These facilities operated by the Commonwealth of Puerto Rico or the Federal government include universities, prisons, hospitals, and military bases (e.g. Puerto Rico Army National Guard barracks, parks and office building complexes), flood control pumps, and transportation authority structures.

4.1 Requirements for Non-Conventional MS4s

All requirements and conditions of Sections 1 – 3 of this permit apply to all Non-Conventional MS4s, except as specifically provided below:

4.1.1 Public education: For the purpose of this permit, the audiences for a Non-Conventional MS4 include the employees, clients and customers (including students at the educational Non-Conventional MS4s (i.e., university)) or visitors to the property, and any contractors working at the facility where the Non-Conventional MS4 is located. The permittee may use some of the educational topics included in Section 2.4.2.1.c., as appropriate, or may focus on topics specific to the MS4. The permittee shall document the educational topics for each target audience in the SWMP and annual reports.

4.1.2 Ordinances and regulatory mechanisms: Some Non-Conventional MS4s may not have authority to enact an ordinance, by-law, or other regulatory mechanisms. MS4s without the authority to enact an ordinance shall ensure that written policies or procedures are in place to address the requirements of Section 2.4.4.8.a., Section 2.4.5.3.a. and Section 2.4.6.3. They may rely on EPA, the PREQB and/or other Commonwealth of Puerto Rico/Federal offices for enforcement assistance.

4.1.3 Assessment of Regulations: Non-Conventional MS4s do not need to meet the requirements of Section 2.4.6.5 to perform compliance inspections. Instead the Non-Conventional MS4 shall focus on maintenance to its stormwater controls. Non-Conventional MS4s should evaluate opportunities to include green infrastructure practices in new development and redevelopment at their facilities. Non-Conventional MS4s should evaluate opportunities to reduce the amount of impervious cover due to parking areas and walkways. Non-conventional MS4s shall report on these efforts in each annual report. The permittee shall also ensure adequate long-term operation and maintenance of stormwater management practices installed by the non-conventional MS4 or its agents.

4.1.4 Water Quality Based Requirements for New Dischargers

New Non-Conventional MS4 facilities are subject to additional water quality-based requirements if they fall within the definition of “new dischargers” under 40 CFR § 122.2: “A new discharger is any building, structure, facility or installation (a) from which there is or may be a ‘discharge of pollutants’ (b) that did not commence the ‘discharge of pollutants’ at a particular ‘site’ prior to August 13, 1979; (c) which is not a ‘new source’; and (d) which never received a finally effective NPDES permit for discharges at that ‘site.’

As used in the definition of “new discharger”, as it applies to a Non-Conventional MS4s authorized under this permit, the term “site” means the land area where the MS4 is located as of the authorization under this permit; and the same or contiguous land if any new structure, facility or installation that is served by the MS4 is created there after the effective date of this permit. Any new Non-Conventional MS4 facility, located on land that is not contiguous with an existing MS4 facility, is subject to the following requirements.

4.1.4.1 New Discharger to Impaired Waters without an Approved TMDL

New dischargers to impaired waters without an approved TMDL are not eligible for coverage under this permit. Such discharger shall apply for an individual permit.

4.1.4.2 New Discharger to Impaired Waters with an Approved TMDL

New dischargers to impaired waters with an approved TMDL are not eligible for coverage under this permit unless the discharger submits to EPA, with its NOI, documentation that proves either:

- a. There are sufficient remaining pollutant load allocations in all TMDLs applicable to the discharges to allow for the discharge and the existing discharges to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards; or
- b. To the extent consistent with law and EPA policy, the permittee establishes an offset for the discharge of the pollutant identified in the TMDL, and receives an affirmative determination from EPA that the new discharger meets the requirements of this section.

The permittee shall retain any relevant documentation with the SWMP.

5.0 Non-Conventional MS4 - Commonwealth of Puerto Rico Department of Transportation and Public Works

Non-Conventional transportation department MS4 is a conveyance or system of conveyances that collect storm water from roadways and structures that are owned and/or operated by the Commonwealth of Puerto Rico Department of Transportation and Public Works and located within an urbanized area. The transportation department in the Commonwealth of Puerto Rico is the Department of Transportation and Public Works (DTOP, for its acronym in Spanish) responsible for operation and maintenance of Puerto Rico owned roadways. All requirements of Sections 1 – 3 of this permit apply with the following exceptions:

5.1 Public education: For the purpose of this permit, the audiences for a transportation department education program include the general public (users of the roadways), employees, and any contractors working at the location. The permittee may use some of the educational topics included in Section 2.4.2.1.c. as appropriate, or may focus on topics specific to the agency. The permittee shall document the educational topics for each target audience.

5.2 Ordinances and regulatory mechanisms: The Non-Conventional transportation department MS4 may not have authority to enact an ordinance, by-law or other regulatory mechanisms. The agency will require that all eligible construction sites, that stormwater discharges into a surface water body and storm sewer, to obtain the EPA NPDES CGP for all construction projects equal to or greater than one (1) acre or part of a common plan that exceeds an acre. The agency shall ensure that written agency policies or procedures are in place to address the requirements of Section 2.4.4.6.a., Section 2.4.5.3.a. and Section 2.4.6.3. These agencies may rely on EPA or the PREQB for enforcement assistance.

5.3 Assessment of regulations: The requirements of Section 2.4.6.1 do not apply. The agency should evaluate opportunities to include green infrastructure practices in new development and redevelopment at the facility. The agency should evaluate opportunities to reduce the amount of impervious cover due to parking areas and walkways. The permittee shall report on these efforts in each annual report. The permittee shall also ensure adequate long-term operation and maintenance of stormwater management practices installed by the agency or its agents.

5.4 System Mapping: Since the extension of DTOP is throughout the entire Commonwealth of Puerto Rico, the time requirement in Section 2.4.4.6 is modified. The permittee shall develop a revised and more detailed map than was required by the 2006 Small MS4 General Permit. This revised map of the MS4 shall be completed within ten (10) years of the authorization under this permit. This permit does not provide additional time for completion of the mapping that was required by the 2006 Small MS4 General Permit.

5.5 Water Quality Based Requirements for New Dischargers

New Non-Conventional transportation authority MS4 structures (i.e., roadways, vehicle parking/repair facilities, equipment facilities and material storage facilities, among others) are subject to additional water quality-based requirements if they fall within the definition of “new dischargers” under 40 CFR § 122.2: “A new discharger is any building, structure, facility or installation (a) from which there is or may be a ‘discharge of pollutants’ (b) that did not

5.0 Non-Conventional MS4 - Commonwealth of Puerto Rico Department of Transportation and Public Works

Non-Conventional transportation department MS4 is a conveyance or system of conveyances that collect storm water from roadways and structures that are owned and/or operated by the Commonwealth of Puerto Rico Department of Transportation and Public Works and located within an urbanized area. The transportation department in the Commonwealth of Puerto Rico is the Department of Transportation and Public Works (DTOP, for its acronym in Spanish) responsible for operation and maintenance of Puerto Rico owned roadways. All requirements of Sections 1 – 3 of this permit apply with the following exceptions:

5.1 Public education: For the purpose of this permit, the audiences for a transportation department education program include the general public (users of the roadways), employees, and any contractors working at the location. The permittee may use some of the educational topics included in Section 2.4.2.1.c. as appropriate, or may focus on topics specific to the agency. The permittee shall document the educational topics for each target audience.

5.2 Ordinances and regulatory mechanisms: The Non-Conventional transportation department MS4 may not have authority to enact an ordinance, by-law or other regulatory mechanisms. The agency will require that all eligible construction sites, that stormwater discharges into a surface water body and storm sewer, to obtain the EPA NPDES CGP for all construction projects equal to or greater than one (1) acre or part of a common plan that exceeds an acre. The agency shall ensure that written agency policies or procedures are in place to address the requirements of Section 2.4.4.6.a., Section 2.4.5.3.a. and Section 2.4.6.3. These agencies may rely on EPA or the PREQB for enforcement assistance.

5.3 Assessment of regulations: The requirements of Section 2.4.6.1 do not apply. The agency should evaluate opportunities to include green infrastructure practices in new development and redevelopment at the facility. The agency should evaluate opportunities to reduce the amount of impervious cover due to parking areas and walkways. The permittee shall report on these efforts in each annual report. The permittee shall also ensure adequate long-term operation and maintenance of stormwater management practices installed by the agency or its agents.

5.4 System Mapping: Since the extension of DTOP is throughout the entire Commonwealth of Puerto Rico, the time requirement in Section 2.4.4.6 is modified. The permittee shall develop a revised and more detailed map than was required by the 2006 Small MS4 General Permit. This revised map of the MS4 shall be completed within ten (10) years of the authorization under this permit. This permit does not provide additional time for completion of the mapping that was required by the 2006 Small MS4 General Permit.

5.5 Water Quality Based Requirements for New Dischargers

New Non-Conventional transportation authority MS4 structures (i.e., roadways, vehicle parking/repair facilities, equipment facilities and material storage facilities, among others) are subject to additional water quality-based requirements if they fall within the definition of “new dischargers” under 40 CFR § 122.2: “A new discharger is any building, structure, facility or installation (a) from which there is or may be a ‘discharge of pollutants’ (b) that did not

commence the 'discharge of pollutants' at a particular 'site' prior to August 13, 1979; (c) which is not a 'new source'; and (d) which never received a finally effective NPDES permit for discharges at that 'site.'

For purposes of this permit, the definition of "new discharger" in 40 CFR § 122.2, as it applies to a transportation agency MS4, the term "site" means the land area where the MS4 is located as of the authorization under this permit; and the same or contiguous land if any new structure, facility or installation that is served by the MS4 is created thereafter the authorization under this permit. Any new transportation MS4 facility that is located on land that is not contiguous with an existing MS4 facility is subject to the following requirements.

5.5.1 New Discharger to Impaired Waters without an Approved TMDL

New dischargers to impaired waters without an approved TMDL are not eligible for coverage under this permit. The permittee shall apply for an individual permit.

5.5.2 New Discharger to Impaired Waters with an Approved TMDL

New dischargers from new Non-Conventional MS4 structures (i.e., roadways, vehicle parking/repair facilities, equipment facilities, and material storage facilities, among others) to impaired waters with an approved TMDL are not eligible for coverage under this permit unless the permittee submits to EPA documentation before the date of authorization to discharge under this permit that proves either:

- a. There are sufficient remaining pollutant load allocations in all TMDLs applicable to the discharges to allow for the discharge and the existing discharges to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards; or
- b. To the extent consistent with law and EPA policy, the permittee establishes an offset for the discharge of the pollutant identified in the TMDL, and receives an affirmative determination from EPA that the new discharger meets the requirements of this section.

The permittee shall retain any relevant documentation with the SWMP.

6.0 Non-Conventional MS4 - Commonwealth of Puerto Rico Department of Natural Environment and Resources

Non-Conventional MS4 is a conveyance or system of conveyances that collects storm water from flood districts and structures (i.e., pump stations) which are owned and/or operated by the Commonwealth of Puerto Rico Department of Natural Environment and Resources (DNER) located within an urbanized area. The DNER own, operate and maintain storm water flood control pump stations in Puerto Rico. All requirements and conditions of this permit apply with the following exceptions. The exceptions are applicable if DNER owns and operates only pump stations and not any of the storm sewers tributary to the pump stations:

6.1 Public education: For the purpose of this permit, the audiences for the storm water flood control structure education program include the general public (located within the potential flood area), employees, and any contractors working at the location. The permittee may use some of the educational topics included in Section 2.4.2.1.c. as appropriate, or may focus on topics specific to the agency. The permittee shall document the educational topics for each target audience. Additionally, DNER should also seek to partner with the municipalities where the flood control pump stations are located to enhance the education outreach of the Municipality and the DNER.

6.2 Ordinances and regulatory mechanisms: The Non-Conventional MS4 may not have authority to enact an ordinance, by-law or other regulatory mechanisms. This hinders DNER authority to enforce actions against the discharges into the pump stations. The Non-Conventional MS4 shall instead enter into interagency or interlocal agreements for monitoring pollutant sources and mitigate within one (1) year of the authorization under this permit.

6.3 Assessment of Regulations: The Non-Conventional MS4 does not need to meet the requirements of Section 2.4.5, Section 2.4.6 and 2.4.7. The Non-Conventional MS4 shall instead develop and implement an operation and maintenance program of its infrastructure. The permittee shall establish within one (1) year of the authorization under this permit a written program detailing the activities and procedures the permittee will implement so the Non-Conventional MS4 infrastructure is maintained in a timely manner to reduce the discharge of pollutants. They do need to meet portions of Section 2.4.4 unless they do own/operate collection systems in which case they need to comply with all of Sections 2.4.5, 2.4.6 and 2.4.7.

6.4 Water Quality Based Requirements for New Dischargers

New Non-Conventional MS4 flood control structures (i.e., pump stations) are subject to additional water quality-based requirements if they fall within the definition of “new dischargers” under 40 CFR § 122.2: “A new discharger is any building, structure, facility or installation (a) from which there is or may be a ‘discharge of pollutants’ (b) that did not commence the ‘discharge of pollutants’ at a particular ‘site’ prior to August 13, 1979; (c) which is not a ‘new source’; and (d) which never received a finally effective NPDES permit for discharges at that ‘site.’

For purposes of this permit, in the definition of “new discharger” in 40 CFR § 122.2, as it applies to a flood control MS4, the term “site” means the land area where the MS4 is located as of the authorization under this permit; and the same or contiguous land if any new structure, facility or installation that is served by the Non-Conventional MS4 is created thereafter. Any new Non-Conventional MS4 flood control structures that are located on land that is not contiguous with an existing MS4 facility is subject to the following requirements.

6.4.1 New Discharger to Impaired Waters without an Approved TMDL

New dischargers to impaired waters without an approved TMDL are not eligible for coverage under this permit. Such discharger shall apply for an individual permit.

6.4.2 New Discharger to Impaired Waters with an Approved TMDL

New dischargers from new Non-Conventional MS4 flood control structures (i.e., pump stations) to impaired waters with an approved TMDL are not eligible for coverage under this permit unless the permittee submits to EPA documentation before the date of authorization to discharge under this permit that either:

- a. There are sufficient remaining pollutant load allocations in all TMDLs applicable to the discharges to allow for the discharge and the existing discharges to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards; or
- b. To the extent consistent with law and EPA policy, the permittee establishes an offset for the discharge of the pollutant identified in the TMDL, and receives an affirmative determination from EPA that the new discharger meets the requirements of this section.

The permittee shall retain any relevant documentation with the SWMP.

7.0 Additional Program Certification Requirement

7.1 CWA Section 401 Water Quality Certification

Section 124.53 of 40 CFR § 124, provides, in part, that in accordance with CWA section 401 (a)(1), EPA may not issue a permit until a certification is granted or waived by the State in which the discharge originates or will originate. On June 11, 2014, EPA requested PREQB to provide EPA with a certification of the proposed 2014 NPDES Small MS4 General Permit within a reasonable time period as defined in 40 CFR § 124.53 of not exceeding sixty (60) days from receipt of EPA's request. In that request EPA provided PREQB a statement indicating that EPA cannot issue or deny the permit until PREQB has granted or denied certification under 40 CFR § 124.55, or waived its right to certify. EPA also indicated that the Commonwealth of Puerto Rico will have waived its right to certify unless that right is exercised within sixty (60) days from the date EPA mailed its request, or unless the EPA Region 2 Regional Administrator finds that unusual circumstances required a longer time. See 40 CFR § 125.53(b)(3).

On June 16, 2015, EPA notified PREQB that it has been more than sixty (60) days since EPA requested PREQB certification of the proposed Small MS4 GP and the Regional Administrator for EPA Region 2 or its delegatee has found no unusual circumstances warranting a longer response time. EPA has determined that the right for PREQB to grant or deny certification is deemed waived for this permit.

7.2 Reopener Clause for Federal Program Consistency Requirements

This general permit may be modified and reissued based on those new conditions required by Federal programs, such as the Endangered Species Act under the National Marine Fishery Services.

7.0 Additional Program Certification Requirement

7.1 CWA Section 401 Water Quality Certification

Section 124.53 of 40 CFR § 124, provides, in part, that in accordance with CWA section 401 (a)(1), EPA may not issue a permit until a certification is granted or waived by the State in which the discharge originates or will originate. On June 11, 2014, EPA requested PREQB to provide EPA with a certification of the proposed 2014 NPDES Small MS4 General Permit within a reasonable time period as defined in 40 CFR § 124.53 of not exceeding sixty (60) days from receipt of EPA's request. In that request EPA provided PREQB a statement indicating that EPA cannot issue or deny the permit until PREQB has granted or denied certification under 40 CFR § 124.55, or waived its right to certify. EPA also indicated that the Commonwealth of Puerto Rico will have waived its right to certify unless that right is exercised within sixty (60) days from the date EPA mailed its request, or unless the EPA Region 2 Regional Administrator finds that unusual circumstances required a longer time. See 40 CFR § 125.53(b)(3).

On June 16, 2015, EPA notified PREQB that it has been more than sixty (60) days since EPA requested PREQB certification of the proposed Small MS4 GP and the Regional Administrator for EPA Region 2 or its delegatee has found no unusual circumstances warranting a longer response time. EPA has determined that the right for PREQB to grant or deny certification is deemed waived for this permit.

7.2 Reopener Clause for Federal Program Consistency Requirements

This general permit may be modified and reissued based on those new conditions required by Federal programs, such as the Endangered Species Act under the National Marine Fishery Services.

Appendix A

Definitions, Abbreviations and Acronyms

All definitions contained in Section 502 of the Clean Water Act and 40 CFR § 122 shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided, but in the event of a conflict, the definition found in the statute or regulation takes precedence.

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

Control Measure refers to any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

Conventional Small MS4 refers to the typical design of municipally owned conveyance or system of conveyances for collecting and conveying storm water. It is primarily an urban political unit having corporate status and usual powers of self-government in which it handles and maintain a conveyance or system of conveyances. In Puerto Rico, there are no first-order administrative divisions as defined by the United States Government, but Puerto Rico has 78 municipalities or "municipios" at the secondary order. For U.S. Census purposes, the municipalities are equivalent to counties.

Clean Water Act or CWA or The Act means is 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 by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. Part 1251 et.seq.)

Director means a Regional Administrator of the Environmental Protection Agency or an authorized representative.

Discharge, when used without a qualifier, refers to "discharge of a pollutant" as defined at 40 CFR § 122.2.

Discharge of a pollutant means any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works (40 CFR § 122).

Discharge-related activities means activities which cause, contribute to, or result in stormwater and allowable non-stormwater point source discharges, and measures such as the siting, construction and operation of BMPs to control, reduce, or prevent pollution in the discharges.

Existing Discharger means an operator applying for coverage under this permit for discharges covered previously under an NPDES general or individual permit.

Facility or Activity - any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

Facility or activity means any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

Federal Facility means any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by, or constructed or manufactured for the purpose of leasing to, the federal government.

Illicit Connection means any man-made conveyance connecting an illegal discharge directly to a municipal separate storm sewer.

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 firefighting activities.

Impaired Water means a water is impaired if it does not meet one or more of its designated use(s). For purposes of this permit, “impaired” refers to categories 4 and 5 of the five part categorization approach used for classifying the water quality standards attainment status for water segments under the TMDL program. Impaired waters compilations are also sometimes referred to as “303(d) lists.” Category 5 waters are impaired because at least one designated use is not being supported or is threatened and a TMDL is needed. Category 4 waters indicate that at least one designated use is not being supported but a TMDL is not needed (4a indicates that a TMDL has been approved, or established by EPA; 4b indicates that other required control measures are expected to result in the attainment of water quality standards in a reasonable period of time; and 4c indicates that the non-attainment of the water quality standard is the result of pollution (e.g. habitat) and is not caused by a pollutant. See USEPA’s 2006 Integrated Report Guidance, July 29, 2005 for more detail on the five part categorization of waters [under EPA National TMDL Guidance <http://www.epa.gov/owow/tmdl/2006IRG>]).

Industrial Activity means the 10 categories of industrial activities included in the definition of “stormwater discharges associated with industrial activity,” as defined in 40 CFR § 122.26(b)(14)(i-ix) and (xi).

Industrial Stormwater means stormwater runoff associated with the definition of “stormwater discharges associated with industrial activity.”

Junction Manhole means, for the purposes of this permit, a manhole or structure with two or more inlets accepting flow from two or more MS4 alignments. Manholes with inlets solely from private storm drains, individual catch basins, or both are not considered junction manholes for these purposes.

Key Junction Manhole means, for the purposes of this part, those junction manholes that can represent one or more junction manholes without compromising adequate implementation of the illicit discharge program. Adequate implementation of the illicit discharge program would not be compromised if the exclusion of a particular junction manhole as a key junction manhole would not affect the permittee’s ability to determine the possible presence of an upstream illicit discharge. A permittee may exclude a junction manhole located upstream from another located in the immediate vicinity or that is serving a drainage alignment with no potential for illicit connections.

Maximum Extent Practicable or “MEP” means, for the purposes of this permit, the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by CWA Section 402(p). A discussion of MEP as it applies to small MS4s is found at 40 CFR § 122.34.

Municipal Separate Storm Sewer or “MS4” 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, manmade channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, municipality, 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, nor of the Puerto Rico Aqueduct and Sewer Authority.

Industrial Stormwater means stormwater runoff associated with the definition of “stormwater discharges associated with industrial activity.”

Junction Manhole means, for the purposes of this permit, a manhole or structure with two or more inlets accepting flow from two or more MS4 alignments. Manholes with inlets solely from private storm drains, individual catch basins, or both are not considered junction manholes for these purposes.

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- (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, nor of the Puerto Rico Aqueduct and Sewer Authority.

New Source means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced:

- i. after promulgation of standards of performance under Section 306 of the CWA which are applicable to such source, or
- ii. after proposal of standards of performance in accordance with Section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal

New Source Performance Standards (NSPS) means the technology-based standards for facilities that qualify as new sources under 40 CFR §§ 122.2 and 122.29.

No exposure means all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, hail and/or runoff.

Non-Conventional Small MS4 refers to a conveyance or system of conveyances that collects stormwater which are owned and operated by the Commonwealth of Puerto Rico and/or Federal government which are located within an urbanized area. The term MS4 does not solely need to be municipally owned storm sewer systems. These Commonwealth of Puerto Rico and Federal operated facilities include universities, prisons, hospitals, and military bases (e.g. State Army National Guard barracks, parks and office building complexes), flood control pumps, transportation authority, among others.

Notice of Intent or “*NOI*” means the mechanism application form used to “register” for coverage under a general permit.

Owner or operator means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.

Permitting Authority means the EPA Regional Administrator or an authorized representative.

Person means an individual, association, partnership, corporation, municipality, State (i.e., Commonwealth of Puerto Rico) or Federal agency, or an agent or employee thereof.

Point source means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff, as stated under 40 CFR § 122.2.

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water, as stated under 40 CFR § 122.2.

Pollutant of concern means a pollutant which causes or contributes to a violation of a water quality standard, including a pollutant which is identified as causing an impairment in a Commonwealth of Puerto Rico's 303(d) list.

Reportable Quantity Release means a release of a hazardous substance at or above the established legal threshold that requires emergency notification. Refer to 40 CFR §§ 110, 177, and 302 for complete definitions and reportable quantities for which notification is required.

Runoff coefficient means the fraction of total rainfall that will appear at the conveyance as runoff.

Significant materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any chemical that the facility is required to report pursuant to Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

Small Municipal Separate Storm Sewer System means all separate storm sewers that are (as defined in 40 CFR § 122.26(b)(16)):

- i. Owned or operated by the United States, a State, city, town, borough, municipality, 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. Not defined as “large” or “medium” municipal separate storm sewer system pursuant to sections 40 CFR §§ 122.26 (b)(4) and (b)(7), or designated under section 40 CFR § 126.26(a)(1)(v).
- iii. 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.

Small MS4 means a small municipal separate storm sewer system.

Small MS4 Area means municipality or municipalities where any Small MS4 is located.

State for purpose of this permit will include the Commonwealth of Puerto Rico.

Stormwater is defined at 40 CFR § 122.26(b)(13) and means storm water runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Discharges Associated with Construction Activity means a discharge of pollutants in stormwater runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavating), construction materials, or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located. (see 40 CFR §§ 122.26(b)(14)(x) and 122.26(b)(15)).

Stormwater Discharges Associated with Industrial Activity means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under Part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this section, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Industrial facilities include those that are federally, State, or municipally owned or operated that meet the description of the facilities listed in Appendix D of this permit. The term also includes those facilities designated under the provisions of 40 CFR § 122.26(a)(1)(v).

Stormwater Management Program (SWMP) refers to a comprehensive program to manage the quality of storm water discharged from the municipal separate storm sewer system.

Total Maximum Daily Loads (TMDLs) means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload

allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. (See Section 303(d) of the Clean Water Act and 40 CFR §§ 130.2 and 130.7).

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:

1. Territory made up of one or more contiguous census blocks having a population density of at least 1,000 people per square mile that is:
 - a. Contiguous with and directly connected by road to other qualifying territory, or
 - b. Noncontiguous with other qualifying territory, and:
 - i. 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
 - ii. Separated by water or other undevelopable 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.
2. A place containing territory qualifying on the basis of criterion 1 [above] will be included in the urbanized area in its entirety (or partially, if the place is an extended city) if that qualifying territory includes at least 50 percent of the population of the place. If the place does not contain any territory qualifying on the basis of the above criterion, or if that qualifying territory includes less than 50 percent of the place’s population, the place is excluded in its entirety.
3. Other territory with a population density of less than 1,000 persons per square mile, provided that it:
 - a. Eliminates an enclave of no more than 5 square miles in the territory otherwise qualifying for the urbanized area when the surrounding territory qualifies on the basis of population density, or
 - b. Closes an indentation in the boundary of the territory otherwise qualifying for the urbanized area when the contiguous territory qualifies on the basis of population density, provided that the indentation is no more than 1 mile across the open end, has a depth at least two times greater than the distance across the open end, and encompasses no more than 5 square miles.

Water Quality Impaired – See “Impaired Water.”

Water Quality Standards (WQS) means a water quality standard that defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water

and by setting criteria necessary to protect the uses. Commonwealth of Puerto Rico and EPA adopt WQS to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (See CWA Sections 101(a)(2) and 303(c)).

ABBREVIATIONS AND ACRONYMS

BMP – Best Management Practice

BPJ – Best Professional Judgment

CGP – Construction General Permit

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. Part 1251 et seq.)

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

DCIA – Directly Connected Impervious Area

EPA – U.S. Environmental Protection Agency

ESA – Endangered Species Act

FWS – U.S. Fish and Wildlife Service

IA – Impervious Area

IDDE – Illicit Discharge Detection and Elimination

LA – Load Allocations

MOS – Margin of Safety

MS4 – Municipal Separate Storm Sewer System

MSGP – Multi-Sector General Permit

NAICS – North American Industry Classification System

NEPA – National Environmental Policy Act

NHPA – National Historic Preservation Act

NMFS – U.S. National Marine Fisheries Service

NOI – Notice of Intent

NPDES – National Pollutant Discharge Elimination System

NRHP – National Register of Historic Places

OMB – U.S. Office of Management and Budget

SHPO – State Historic Preservation Officer

SIC – Standard Industrial Classification

SWMP – Stormwater Management Program

SWPPP – Stormwater Pollution Prevention Plan

TMDL – Total Maximum Daily Load

USGS – United States Geological Survey

WLA – Wasteload Allocation

WQRP – Water Quality Response Plan

WQS – Water Quality Standard

Appendix B

Standard Permit Conditions

Standard permit conditions in Appendix B are consistent with the general permit provisions required under 40 CFR § 122.41.

B.1. Duty to Comply

You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

- A. You must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
- B. Penalties for Violations of Permit Conditions: the Director will adjust the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (61 FR 69360, December 31, 1996, as corrected in 62 FR 13514, March 20, 1997) as mandated by the Debt Collection Improvement Act of 1996 for inflation on a periodic basis. This rule allows EPA's penalties to keep pace with inflation. The Agency is required to review its penalties at least once every 4 years thereafter and to adjust them as necessary for inflation according to a specified formula. The civil and administrative penalties following were adjusted for inflation starting in 1996.
 - 1. Criminal Penalties.
 - a. Negligent Violations. The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation or by imprisonment of not more than two years, or both.
 - b. Knowing Violations. The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both.
 - c. Knowing Endangerment. The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306,

307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than \$250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

- d. False Statement. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this section, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or both.
2. Civil Penalties. The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. Part 2461 as amended by the Debt Collection Improvement Act (31 U.S.C. Part 3701) (currently \$37,500 per day for each violation).
 3. Administrative Penalties. The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:
 - a. Class I Penalty. Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. Part 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. Part 3701) (currently \$16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$37,500).
 - b. Class II Penalty. Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. Part 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. Part 3701) (currently \$16,000 per day for each day during

which the violation continues, with the maximum amount of any Class II penalty not to exceed \$177,500).

B.2. Duty to Reapply

If you wish to continue an activity regulated by this permit after the expiration date of this permit, you must apply for and obtain a new permit.

B.3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for you in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.4. Duty to Mitigate

You must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

B.5. Proper Operation and Maintenance

You must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by you to achieve compliance with the conditions of this permit, including the requirements of your SWPPP. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by you only when the operation is necessary to achieve compliance with the conditions of this permit.

B.6. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. Your filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B.7. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privileges.

B.8. Duty to Provide Information

You must furnish to EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), within a reasonable time, any information which EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. You must also furnish to EPA upon request, copies of records required to be kept by this permit.

B.9. Inspection and Entry

You must allow EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), upon presentation of credentials and other documents as may be required by law, to:

- A. Enter upon your premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- D. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B.10. Monitoring and Records

- A. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.
- B. You must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of EPA at any time.
- C. Records of monitoring information must include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The individual(s) who performed the sampling or measurements;
 - 3. The date(s) analyses were performed;
 - 4. The individual(s) who performed the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- D. Monitoring results must be conducted according to test procedures approved under 40 CFR § 136 or, in the case of sludge use or disposal, approved under 40 CFR § 136 unless otherwise specified in 40 CFR § 503, unless other test procedures have been specified in the permit.
- E. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this section, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

B.11. Signatory Requirements

- A. All applications, including NOIs, must be signed as follows:
1. For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 3. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).
- B. All reports, including SWPPPs, inspection reports, annual reports, monitoring reports, reports on training and other information required by this permit must be signed by a person described in Appendix B, Subsection 11.A above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described in Appendix B, Subsection 11.A;
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 3. The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.
- C. Changes to Authorization. If an authorization under Appendix B, Subsection 11.B is no longer accurate because a different operator has responsibility for the overall operation of the industrial facility, a new NOI satisfying the requirements of Subsection 11.B must be

B.11. Signatory Requirements

- A. All applications, including NOIs, must be signed as follows:
1. For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 3. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).
- B. All reports, including SWPPPs, inspection reports, annual reports, monitoring reports, reports on training and other information required by this permit must be signed by a person described in Appendix B, Subsection 11.A above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described in Appendix B, Subsection 11.A;
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 3. The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.
- C. Changes to Authorization. If an authorization under Appendix B, Subsection 11.B is no longer accurate because a different operator has responsibility for the overall operation of the industrial facility, a new NOI satisfying the requirements of Subsection 11.B must be

submitted to EPA prior to or together with any reports, information, or applications to be signed by an authorized representative.

- D. Any person signing documents required under the terms of this permit must include the following 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.”
- E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

B.12. Reporting Requirements

- A. Planned changes. You must give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR § 122.29(b); or
 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR § 122.42(a)(1).
- B. Anticipated noncompliance. You must give advance notice to EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- C. Transfers. This permit is not transferable to any person except after notice to EPA. EPA may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See 40 CFR § 122.61; in some cases, modification or revocation and reissuance is mandatory.)
- D. Monitoring reports. Monitoring results must be reported at the intervals specified elsewhere in this permit.

1. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms (paper or electronic) provided or specified by EPA for reporting results of monitoring of sludge use or disposal practices.
 2. If you monitor any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by EPA.
 3. Calculations for all limitations which require averaging of measurements must use an arithmetic mean and non-detected results must be incorporated in calculations as the limit of quantitation for the analysis.
- E. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.
- F. Twenty-four hour reporting.
1. You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances. A written submission must also be provided within five days of the time you become aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 2. The following shall be included as information which must be reported within 24 hours under this section.
 - a. Any unanticipated bypass which exceeds any effluent limitation in the permit (See 40 CFR § 122.41(g)).
 - b. Any upset which exceeds any effluent limitation in the permit
 - c. Violation of a maximum daily discharge limitation for any of the pollutants listed by EPA in the permit to be reported within 24 hours (See 40 CFR § 122.44(g)).
 3. EPA may waive the written report on a case-by-case basis for reports under Appendix B, Subsection 12.F.2 if the oral report has been received within 24 hours.
- G. Other noncompliance. You must report all instances of noncompliance not reported under Appendix B, Subsections 12.D, 12.E, and 12.F, at the time monitoring reports are submitted. The reports must contain the information listed in Appendix B, Subsection 12.F.

- H. Other information. Where you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Permitting Authority, you must promptly submit such facts or information.

B.13. Bypass

A. Definitions.

1. Bypass means the intentional diversion of waste streams from any portion of a treatment facility
2. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

- B. Bypass not exceeding limitations. You may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Appendix B, Subsections 13.C and 13.D.

C. Notice.

1. Anticipated bypass. If you know in advance of the need for a bypass, you must submit prior notice, if possible at least ten days before the date of the bypass.
2. Unanticipated bypass. You must submit notice of an unanticipated bypass as required in Appendix B, Subsection 12.F (24-hour notice).

D. Prohibition of bypass.

1. Bypass is prohibited, and EPA may take enforcement action against you for bypass, unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - c. You submitted notices as required under Appendix B, Subsection 13.C.
2. EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above in Appendix B, Subsection 13.D.1.

B.14. Upset

- A. Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- B. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Appendix B, Subsection 14.C are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- C. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - 1. An upset occurred and that you can identify the cause(s) of the upset;
 - 2. The permitted facility was at the time being properly operated;
 - 3. You submitted notice of the upset as required in Appendix B, Subsection 12.F.2.b (24 hour notice); and
 - 4. You complied with any remedial measures required under Appendix B, Subsection 4.
- D. Burden of proof. In any enforcement proceeding, you, as the one seeking to establish the occurrence of an upset, have the burden of proof.

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Appendix C

Endangered Species Act Guidance Review Procedure

Background

In order to meet its obligations under the Clean Water Act and the Endangered Species Act (ESA), and to promote the goals of those Acts, the Environmental Protection Agency (EPA) is seeking to ensure the activities regulated by this general permit do not adversely affect endangered and threatened species and critical habitat. Applicants applying for permit coverage must assess the impacts of their storm water discharges and discharge-related activities on Federally listed endangered and threatened species (“listed species”) and designated critical habitat (“critical habitat”) to ensure that those goals are met. Prior to obtaining general permit coverage, applicants must meet the ESA eligibility provisions of this permit. EPA strongly recommends that applicants follow the guidance in this Appendix at the earliest possible stage to ensure the notification requirements for general permit coverage are complete upon NOI submission.

Applicants also have an independent ESA obligation to ensure that their activities do not result in any prohibited “takes” of listed species¹. Many of the measures required in this general permit and in these instructions to protect species may also assist in ensuring that the applicant’s activities do not result in a prohibited take of species in violation of Section 9 of the ESA. If the applicant has plans or activities in an area where endangered and threatened species are located, they may wish to ensure that they are protected from potential takings liability under ESA Section 9 by obtaining an ESA section 10 permit or by requesting formal consultation under ESA Section 7. Applicants that are unsure whether to pursue a Section 10 permit or a Section 7 consultation for takings protection should confer with the appropriate United States Fish and Wildlife Service (USFWS)² office or the National Marine Fisheries Service (NMFS), (jointly the Services).

ESA Eligibility Process

Before submitting a notice of intent (NOI) for coverage by this permit, applicants must determine whether they meet the ESA eligibility criteria by following the steps in “Steps to Determine if the ESA Eligibility Criteria Can Be Met” of this Appendix. Applicants that cannot meet any of the eligibility criteria must apply for an individual permit.

¹ Section 9 of the ESA prohibits any person from “taking” a listed species (e.g. harassing or harming it) unless: (1) the taking is authorized through an “incidental take statement” as part of completion of formal consultation according to ESA section 7; (2) where an incidental take permit is obtained under ESA section 10 (which requires the development of a habitat conversion plan; or (3) where otherwise authorized or exempted under the ESA. This prohibition applies to all entities including private individuals, businesses, and governments.

² Discharges to marine waters may require consultation with the National Marine Fisheries Service instead.

Appendix C

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² Discharges to marine waters may require consultation with the National Marine Fisheries Service instead.

ESA Eligibility Criteria

The ESA eligibility requirements of this permit may be satisfied by documenting that one or more of the following criteria has been met. Upon notification, EPA may direct an applicant to pursue eligibility under Criterion B.

- Criterion A: No endangered or threatened species or critical habitat are in proximity to the storm water discharges or discharge related activities.
- Criterion B: In the course of a separate federal action involving the municipality, formal or informal consultation with the Fish and Wildlife Service and/or the National Marine Fisheries Service under Section 7 of the ESA has been concluded and that consultation (1) addressed the effects of the storm water discharges and discharge related activities on the listed species and critical habitat; and (2) the consultation resulted in either a no jeopardy opinion or a written concurrence by USFWS and/or NMFS on a finding that the storm water discharges and discharge related activities are not likely to adversely affect listed species or critical habitat.
- Criterion C: The activities are authorized under Section 10 of the ESA and that authorization addresses the effects of the storm water discharges and discharge related activities on listed species and critical habitat.
- (Eligibility under this criterion is not likely.) This criterion involves a municipality's activities being authorized through the issuance of a permit under Section 10 of the ESA and that authorization addresses the effect of the municipality's storm water discharges and discharge related activities on listed species and designated critical habitat. Municipalities must follow USFWS and/or NMFS procedures when applying for an ESA Section 10 permit (see 50 CFR § 17.22(b)(1) for USFWS and Part 222.22 for NMFS). Application instructions for Section 10 permits can be obtained by assessing the appropriate websites (www.fws.gov and www.nmfs.noaa.gov) or by contacting the appropriate regional office.
- Criterion D: The storm water discharges and discharge related activities were already addressed in another operator's certification of eligibility which includes the municipality's storm water activities.
- Criterion E: Using the best scientific and commercial data available, the effect of the storm water discharge and discharge related activities on listed species and critical habitat have been evaluated. Based on those evaluations a determination is made by the permittee and affirmed by EPA that the storm water discharges and discharge related activities are not likely to adversely affect any federally threatened or endangered listed species or designated critical habitat.

Steps to Determine if the ESA Eligibility Criteria Can Be Met

To determine eligibility, you must assess (or have previously assessed) the potential effects of your known storm water discharges and discharge related activities on listed species or critical habitat, PRIOR to completing and submitting a Notice of Intent (NOI). You must follow the steps outlined below and document the results of your eligibility determination.

Step 1 – Determine if you can meet Criterion “A”

Criterion A: You can certify eligibility, according to Criterion A, for coverage by this permit if you can answer “No” to all of the following questions:

- Are there any Endangered Species in your Municipality? Are there any Critical Habitats in your Municipality?
- Are there any Endangered Species or Critical Habitat in proximity to your storm water discharges?

Use the guidance below to answer these questions, and to “*Check for Listed Endangered Species in Your Municipality*,” “*Check for Critical Habitat in Your Municipality*,” and “*Check for Proximity to Your Storm water discharge locations or discharge related activities*.”

If you answered “No” to the questions above, you have met ESA eligibility Criterion A. Skip to Step # 5.

If you answered “Yes” to either of the questions above, go to Step # 2.

Guidance Eligibility Under Criterion A*Check for Listed Endangered Species in Your Municipality*

Look at the latest Municipality species list to see if any listed species are found in your Municipality. If you are located in proximity to the border of a Municipality or your municipality or activity is in one Municipality and your discharge points are located in another, you must look under both counties. Since species are listed and de-listed periodically, you will need the most current list at the time you are conducting your endangered species assessment.

Check for Critical Habitat in your Municipality

Some (but not all) listed species have designated critical habitat. Exact locations of such habitat are provided in the endangered species regulations at 50 CFR §§ 17 and 226. To determine if the discharge locations or activities are within designated critical habitat, you should either:

- Review those regulations (50 CFR §§ 17 and 226) that specify critical habitat. These regulations can be found in many larger libraries or via the Government Printing Office Website, www.access.gpo.gov; or

- Contact the USFWS office. A list of USFWS office for this permit coverage is found near the end of this Appendix; or
- Contact the Natural Heritage Program for the Commonwealth of Puerto Rico. Heritage programs gather, manage and distribute detailed information about the biological diversity found within their jurisdiction. They frequently have the most current information on listed species and critical habitat. Contact information for the Heritage program is provided below in Appendix D.

Check for Proximity to your Discharge locations or municipal activities

You must determine whether listed species or critical habitat are in proximity to your storm water discharges or discharge related activities. Listed species and critical habitat, including those in adjacent counties are in proximity when they are:

- Located in the path or immediate area through which or over which storm water flows from the municipality to the point of discharge into the receiving water. This includes areas in the receiving water downstream from the point of discharge.
- Located in the immediate vicinity of, or nearby, the point of discharge into receiving waters.
- Located in the area of the municipality where construction activities by the municipality are planned.

The area in proximity to be searched/surveyed for listed species will vary with the size and location of the outfall pipe, the nature and quantity of the storm water discharges, and the type of receiving waters. You should use the method(s) which allow you to determine, to the best of your knowledge, whether listed species, including those in adjacent counties, are in proximity to your particular outfall. These methods may include:

- Conducting visual inspections.
- Contacting the nearest Puerto Rico Department of Natural Environment and Resources or USFWS Offices. Many endangered and threatened species are found in well defined habitats. This information is frequently known to State or federal wildlife.
- Contacting local/regional conservation groups such as natural heritage programs (see section below). These groups inventory species and their locations maintain lists of sightings and habitats.
- Conducting a formal biological survey.

Step 2 – Determine if You Can Meet Eligibility Criteria “B”, “C” or “D”

Criterion B: You can certify eligibility according to Criteria B for coverage by this permit if you answer “Yes” to all of the following questions:

- Has consultation under ESA Section 7, already been completed for discharges from your municipality³?
- Did the previously completed ESA Section 7 consultation consider all currently listed species and critical habitat and address your storm water discharges and discharge-related activities?
- Did the ESA Section 7 consultation result in either a “no jeopardy” opinion by the Service (for formal consultation) or concurrence by the Service that your activities would be “unlikely to adversely affect” listed species or critical habitat?
- Do you agree to implement all measures upon which the consultation was conditioned?

If you answered “Yes” to all four questions above, you have met ESA eligibility Criteria B. Skip to Step 5.

If you answered “No” to any of the four questions above, check to see if you can meet Criteria C or D, or Go to Step 3.

Criterion C: You can certify eligibility according to Criterion C for coverage by this permit if you can answer “Yes” to all of the following questions:

- Has an ESA Section 10 permit already been issued for discharges from your storm sewer system? ⁴
- Does your ESA Section 10 permit consider all currently listed species and critical habitat, and address your storm water discharges and discharge-related activities for you system?

If you answered “Yes” to the two questions above, you have met ESA eligibility Criteria C. Skip to Step 5.

If you answered “No” to either of the two questions above, check to see if you can meet Criteria D or go to Step 3.

Criterion D: You can certify eligibility according to Criterion D for coverage by this permit if you can answer “Yes” to all of the following questions:

³ A formal or informal ESA section 7 consultation on this or another federal action (e.g., New source review under NEPA, application for a dredge and fill permit under CWA Section 404, application for individual NPDES permit, etc.) addressed the effect of your storm water discharges and discharge related activities on listed species and critical habitat. (See 50 CFR § 402.13).

⁴ You have a permit under section 10 of the ESA and that authorization addresses the effects of your storm water discharges and discharge-related activities on listed species and critical habitat. You must follow USFWS procedures when applying for an ESA Section 10 permit (See 50 CFR § 17.22(b)(1)).

- Did another operator previously certify ESA eligibility for your system?⁵
- Did the other operator's certification of eligibility consider all currently listed species and critical habitat and address your storm water discharges and discharge-related activities?
- Do you agree to implement all measures upon which the other operator's certification was based?

Before you rely on another operator's certification, you should carefully review that certification along with any supporting information. You also need to confirm that no additional species have been listed or critical habitat designated in the area of your system since the other operator's endangered species assessment was done. If you do not believe that the other operator's certification provides adequate coverage for your system, you should provide your own independent endangered species assessment and certification.

If you answered "Yes" to all three questions above, you have met ESA eligibility Criteria D. Skip to Step 5.

If you answered "No" to any of the three questions above, go to Step 3.

Step 3 – Determine if You Can Meet Eligibility Criterion "E"

Criterion D: You can certify eligibility according to Criterion E for coverage by this permit if you answer "Yes" to all of the following questions:

- Have you determined that your storm water discharges and discharge related activities are "not likely to adversely affect" listed species or critical habitat, and/or have you received concurrence from the appropriate Service with a not likely to adversely affect determination?
- Do you agree to implement all measures upon which the determination was conditioned?

Use the guidance below to understand adverse effect determination and to answer these questions.

If you answered "Yes" to both questions above, you have met ESA eligibility Criterion E. Go to Step 5.

If you answered "No" to either of the questions above, you are not eligible for coverage by this permit. You must submit an application for an individual permit for your storm water discharges. (See 40 CFR § 122.21).

⁵ In order to meet the permit eligibility requirements by relying on another operator's certification of eligibility, the other operator's certification must apply to the location of your system and must address the effects from your storm water discharges and discharge-related activities on listed species and critical habitat.

- Did another operator previously certify ESA eligibility for your system?⁵
- Did the other operator's certification of eligibility consider all currently listed species and critical habitat and address your storm water discharges and discharge-related activities?
- Do you agree to implement all measures upon which the other operator's certification was based?

Before you rely on another operator's certification, you should carefully review that certification along with any supporting information. You also need to confirm that no additional species have been listed or critical habitat designated in the area of your system since the other operator's endangered species assessment was done. If you do not believe that the other operator's certification provides adequate coverage for your system, you should provide your own independent endangered species assessment and certification.

If you answered "Yes" to all three questions above, you have met ESA eligibility Criteria D. Skip to Step 5.

If you answered "No" to any of the three questions above, go to Step 3.

Step 3 – Determine if You Can Meet Eligibility Criterion "E"

Criterion D: You can certify eligibility according to Criterion E for coverage by this permit if you answer "Yes" to all of the following questions:

- Have you determined that your storm water discharges and discharge related activities are "not likely to adversely affect" listed species or critical habitat, and/or have you received concurrence from the appropriate Service with a not likely to adversely affect determination?
- Do you agree to implement all measures upon which the determination was conditioned?

Use the guidance below to understand adverse effect determination and to answer these questions.

If you answered "Yes" to both questions above, you have met ESA eligibility Criterion E. Go to Step 5.

If you answered "No" to either of the questions above, you are not eligible for coverage by this permit. You must submit an application for an individual permit for your storm water discharges. (See 40 CFR § 122.21).

⁵ In order to meet the permit eligibility requirements by relying on another operator's certification of eligibility, the other operator's certification must apply to the location of your system and must address the effects from your storm water discharges and discharge-related activities on listed species and critical habitat.

Guidance for Adverse Effects Determination

If you are unable to certify eligibility under Criterion A, B, C, or D, you must assess whether your storm water discharges and discharge-related activities are likely to adversely affect listed species or critical habitat. “Discharge-related activities” include: activities which cause, contribute to, or result in point source storm water pollutant discharges; and measures to provide treatment for storm water discharges including the siting, construction and operational procedures to control, reduce or prevent water pollution. Please be aware that no protection from incidental takings liability is provided under this criterion.

The scope of effects to consider will vary with each system. If you are having difficulty in determining whether your system is likely to cause adverse effects to a listed species or critical habitat, you should contact the appropriate office of the USFWS, NMFS, or Natural Heritage Program for assistance. In order to complete the determination of effects it will be necessary to follow the consultation procedures in Section 7 of the ESA (See Criterion B information above, and Section 7 consultation web link below).

Upon completion of your assessment, document the results of your effects determination. If adverse effects are not likely, you are eligible under Criterion E – proceed to Step 5 of this Attachment. Your determination may be based on measures that you implement to avoid, eliminate, or minimized adverse effects.

If the determination is “May adversely affect”, you must contact the USFWS or NMFS to discuss your findings and measures you could implement to avoid, eliminate, or minimize adverse effects. If you and the Service(s) reach agreement on measures to avoid adverse effects, you are eligible under criterion “E”. Any terms and/or conditions to protect listed species and critical habitat that you relied on in order to complete an adverse effects determination, must be incorporated into your Storm Water Management Program (required by this permit) and implemented in order to maintain permit eligibility.

If endangered species issues cannot be resolved: If you cannot reach agreement with the USFWS or NMFS on measures to avoid, eliminate or reduce adverse effects, and the likely adverse effects cannot be otherwise addressed through meeting the other criteria, then you are not eligible for coverage under this permit. You must seek coverage under an individual permit.

Effects from storm water discharges and discharge-related activities which could pose an adverse effect include:

- *Hydrological:* Storm water discharges may cause siltation, sedimentation, or induce other changes in receiving waters such as temperature, salinity or pH. These effects will vary with the amount of storm water discharged and the volume and condition of the receiving water. Where a discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely.

- *Habitat*: Excavation, site development, grading and other surface disturbance activities, including the installation or placement of treatment equipment may adversely affect listed species or their habitat. Storm water from the small MS4 may inundate a listed species habitat.
- *Toxicity*: In some cases, pollutants in the storm water may have toxic effects on listed species.

Step 4 – Submit Notice of Intent and Document Results of the Eligibility Determination

Once the ESA eligibility requirements have been met, and you have determined NHPA eligibility (see Appendix D), you may submit the Notice of Intent. Signature and submittal of the NOI constitutes your certification, under penalty of law, of eligibility for permit coverage.

You must include documentation of ESA eligibility in the Storm Water Management Program required by the permit. Documentation for the various ESA eligibility criteria are as follows:

- Criterion A: A copy of the most current county species list pages for the counties where your storm water discharges and storm sewer system are located. You must also include a statement on how you determined that no listed species or critical habitats are in proximity to your storm water system or discharges.
- Criterion B: A copy of the USFWS and/or NMFS, as appropriate, biological opinion or concurrence on a finding of “unlikely to adversely affect” regarding the ESA Section 7 consultation.
- Criterion C: A copy of the USFWS and/or NMFS, as appropriate, letter transmitting the ESA Section 10 authorization.
- Criterion D: A copy of the documents originally used by the other operator of your system to satisfy the documentation requirements of Criteria A, B, C, or E.
- Criterion E: A copy of the appropriate Services’ concurrence with the operator’s determination that the storm water discharges and discharge-related activities were not likely to adversely affect listed species.

Duty to Implement Terms and Conditions upon Which Eligibility was Determined

You must comply with any terms and conditions imposed under the ESA eligibility requirements to ensure that your storm water discharges and discharge related activities do not pose adverse effects or jeopardy to listed species and/or critical habitat. You must incorporate such terms and conditions into your Storm Water Management Program as required by this permit. If the ESA eligibility requirements of this permit cannot be met, then you may not receive coverage under this permit and must apply for an individual permit.

United States Fish and Wildlife Service Office

National websites for Endangered Species Information:

Endangered Species home page: <http://www.fws.gov/endangered>

ESA Section 7 Consultations: <http://endangered.fws.gov/consultation/index.html>

U.S. FWS – Region 4 (Southeast Region)

Supervisor

Ecological Services Field Office

U.S. Fish and Wildlife Services

Carr. 301, Km 5.1, Barrio Corozo

Boquerón, Puerto Rico 00622-0510

Telephone: (787) 851-7297

National Marine Fisheries Service Office

Website: http://www.nmfs.noaa.gov/pr/species/esa_species.htm

Caribbean Branch Office

National Marine Fisheries Service

Endangered Species Branch, Protected Resource Division

Attn: Endangered Species Coordinator

Carr. 301, Km 5.1, Barrio Corozo

Boquerón, Puerto Rico 00622-0510

Puerto Rico Natural Heritage Office

The Puerto Rico Department of Natural Environment and Resources (DNER) is in charge of the implementation and formulation of environmental public policy and the protection and conservation of natural resources, environment and energy. It was created in 1972 and reorganized in 1993. The DNER is part of the Governor's Constitutional Cabinet.

The agency has a wide range of public servants from various disciplines and skills committed to the protection and conservation of the environment. Among the staff there are experts in various disciplines as educators, biologists, geologists, ecologists, planners, computer professionals, architects, translators, lawyers, engineers, agronomists, surveyors, pilots, among others. They all bring their skills, knowledge and experience to achieve their mission.

DNER organizational structure is designed to integrate components of management, education, legal representation, scientific research, project management, social interest, adjudicative

processes permits and endorsements, boating safety, monitoring and management of the agency for the effective implementation of their responsibilities and ministerial functions.

These programs gather, manage, and distribute detailed information about the biological diversity found within their jurisdictions. Developers, businesses, and public agencies use natural heritage information to comply with environmental laws and to improve the environmental sensitivity of economic development projects. Local governments use the information to aid in land use planning.

Through their website you can browse the various offices of the DNER, where you can discover and access the services provided by both there Central Office and the other 68 units distributed across the Commonwealth of Puerto Rico. DNER is accessible on-line at: <http://www.drna.gobierno.pr>, which provides links and other access to a large number of specific Commonwealth of Puerto Rico programs and documents.

Appendix D

National Historic Preservation Act Review Guidance Procedures

Purpose of Guidance

This guidance accompanies the Programmatic Agreement (PA) for the U.S. Environmental Protection Agency (EPA or the Agency) 2016 National Pollutant Discharge Elimination System (NPDES) stormwater Small Municipal Separate Storm Sewer System General Permit (Small MS4 General Permit), in compliance with Section 106 of the National Historic Preservation Act (NHPA), to assist State Historic Preservation Officers (SHPOs) during their involvement with permit applicants seeking coverage under the Small MS4 General Permit. The Small MS4 General Permit authorizes stormwater discharges associated with runoff from separate storm sewer system within municipal urbanized areas as defined at 40 CFR § 122.32(a)(1).

The scope of potential impacts to historic properties as a result of the issuance of this permit is the construction, installation or alteration of subsurface stormwater discharge controls, generally limited in size to less than one acre of ground disturbing activities. Controls involving ground disturbances of one acre or more require coverage under a different permit, the Construction General Permit (except for mining operations which are covered under the Multi Sector General Permit for all earth disturbing activities). Stormwater controls which typically require some subsurface earth disturbance include catch basins, drainage inlets, pipes, culverts, dikes, ponds, bioretention areas, ditches, trenches, channels, swales, land manipulation: contouring, sloping and grading, perimeter drains, stormwater injection wells, and manufactured treatment devices (e.g., particle settlers, oil/water separators).

The 2016 Small MS4 General Permit includes a screening process that applicants must follow to help determine whether they could have potential adverse effects on historic properties. The screening process must be completed before operators of ongoing public entities or new public entities operators (hereinafter both old and new operators will be referred to as “applicants”) can establish their eligibility for coverage under the Small MS4 General Permit. Only those public entities that have no potential to adversely affect historic properties or properties eligible for listing in the National Register are eligible for coverage under the Small MS4 General Permit.

Although the coverage of individual public entities under the Small MS4 General Permit does not constitute separate Federal undertakings, the screening process provides an appropriate site-specific means of addressing historic property issues in connection with EPA’s issuance of the permit. The purpose of this guidance is to clarify for SHPOs the historic properties screening procedures in the Small MS4 General Permit and the Programmatic Agreement (PA) for the Small MS4 General Permit. The screening procedures, the PA, and this guidance are intended to minimize the workload for SHPOs, TPOs and tribal representatives during their involvement with Small MS4 General Permit applicants and permittees.

Background on the 2016 EPA Small MS4 General Permit for Puerto Rico

EPA's Clean Water Act (CWA) regulations require an NPDES permit for stormwater discharges from large, medium and small municipal separate storm sewer system. This permitting mechanism is designed to prevent stormwater runoff from washing harmful pollutants into local surface waters such as streams, rivers, lakes or coastal waters. Most States are authorized under the Clean Water Act (CWA) and NPDES regulations to issue NPDES permits, but EPA remains the NPDES permitting authority in the Commonwealth of Puerto Rico subject to construction by a Municipality, Federal Facility; and similar public entities. The 2016 Small MS4 General Permit will be issued by EPA to cover stormwater discharges from municipal separate storm sewer system in the Commonwealth of Puerto Rico.

To obtain authorization to discharge under EPA's 2016 Small MS4 General Permit applicants must submit to EPA a complete and accurate Notice of Intent (NOI), which certifies to EPA their eligibility for permit coverage. After a 30-day waiting period, applicants are authorized to discharge stormwater in compliance with the permit, unless EPA provides notification that authorization is delayed or denied.

When issuing a permit for actions with the potential to affect historic properties that are either listed or eligible for listing on the National Register of Historic Places. EPA must comply with the implementing regulations for Section 106 of the NHPA. Section 106 requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. The implementing regulations allow federal agencies to develop a PA to establish a process that may differ from the regular Section 106 process (see 36 CFR § 800.14). The PA creates a process to govern the resolution of potential effects from multiple undertakings.

Unlike most other general permits which cover discharges from new entities, the Small MS4 General Permit largely covers repeat permittees. The number of permittees under EPA's Small MS4 General Permit is approximately 82 facilities typically added in a given permit term of five years. Such applicants typically have stormwater controls in place and consequently would not be constructing, installing or altering their subsurface stormwater discharge controls unless pollutant loads in their discharges or other circumstances compelled them to do so (often, necessary changes instituted by a facility would involve pollution prevention measures rather than new subsurface controls). But because of the nature of general permits, the designation of any new municipal separate storm sewer system and whether they will potentially impact historic properties as a result of the installation of subsurface stormwater controls would be unknown by the Agency in advance. These new municipal separate storm sewer systems must follow the same procedures to certify they would have no adverse effects to historic properties but without the benefit of previous pre-certification investigations.

Summary of the Historic Properties Screening Process in the 2016 Small MS4 General Permit

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of Federal “undertakings” on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. The term Federal “undertaking” is defined in the NHPA regulations to include a project, activity, or program of a Federal agency including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval. See 36 CFR § 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. See 36 CFR § 800.16(1).

Key Terms

Historic property – Prehistoric or historic districts, sites, buildings, structures, or objects that are included in or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and remains that are related to and located within such properties.

ACHP – Advisory Council on Historic Preservation; an independent Federal agency.

SHPO – The State Historic Preservation Officer for a particular state.

Area of Potential Effects (APE) – The geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

EPA’s issuance of the Small MS4 General Permit is a Federal undertaking within the meaning of the NHPA regulations. To address any issues relating to historic properties in connection with issuance of the permit, EPA has included criteria for applicants to certify that potential impacts of their covered activities on historic properties have been appropriately considered and addressed. Although individual applications for coverage under the general permit do not constitute separate Federal undertakings, the screening criteria and certifications provide an appropriate site-specific means of addressing historic property issues in connection with EPA’s issuance of the permit. Municipalities seeking coverage under the Small MS4 General Permit are thus required to make certain certifications regarding the potential effects of their stormwater discharge, allowable non-stormwater discharge, and discharge-related activities on properties listed or eligible for listing on the National Register of Historic Places.

Activities with No Potential to Have an Effect on Historic Properties

A determination that a Federal undertaking has no potential to have an effect on historic properties fulfills an agency’s obligations under the NHPA. EPA has reason to believe that the vast majority of activities authorized under the Small MS4 General Permit have no potential to have effects on historic properties. The purpose of this permit is to control pollutants that may be transported in stormwater runoff from municipal separate storm sewer systems. EPA does not anticipate effects on historic properties from the pollutants in the stormwater and allowable non-

stormwater discharges. Thus, to the extent EPA's issuance of this general permit authorizes discharges of such constituents, confined to existing stormwater channels or natural drainage areas, the permitting action does not have the potential to cause effects on historic properties.

In addition, the overwhelming majority of sources covered under this permit will be facilities that are seeking renewal of previous permit coverage. These existing dischargers should have already addressed NHPA issues in the 2003 Small MS4 General Permit as they were required to certify that they were either not affecting historic properties or they had obtained written agreement from the applicable SHPO regarding methods of mitigating potential impacts. Both existing and new dischargers must follow the historic property screening procedures to determine their eligibility. EPA is not aware of any impacts on historic properties from activities covered under the 2003 Small MS4 General Permit or, for that matter, any need for a written agreement. Therefore, to the extent this permit authorizes renewal of prior coverage without relevant changes in operations; it has no potential to have an effect on historic properties.

Activities with Potential to Have an Effect on Historic Properties

EPA believes this permit may have some potential to have an effect on historic properties where the Small MS4 General Permit authorizes the construction and/or installation of stormwater control measures that involve ground disturbing activities and impact less than 1 acre of land. Ground disturbances of 1 acre or more require coverage under a different permit, the Construction General Permit. Where you have to disturb the land through the construction and/or installation of control measures, there is a possibility that artifacts, records, or remains associated with historic properties could be impacted. Therefore, if you are establishing new or altering existing control measures to manage your stormwater that will involve subsurface ground disturbance of less than 1 acre, you will need to ensure (1) that historic properties will not be impacted by your activities or (2) that you are in compliance with a written agreement with the SHPO that outlines all measures you will carry out to mitigate or prevent any adverse effects on historic properties.

Examples of Control Measures Which Involve Ground Disturbing Activities

EPA reviewed typical control measures currently employed to determine which practices involve some level of earth disturbance. The types of control measures that are presumptively expected to cause subsurface ground disturbance include, but are not limited to, the following:

- catch basins, drainage inlets
- pipes, culverts
- dikes
- ponds, bioretention areas
- ditches, trenches, channels, swales, berms
- perimeter drains

- stormwater injection wells
- manufactured treatment devices (e.g., particle separators, oil/water separators)

EPA cautions dischargers that this list is non-inclusive. Other control measures that involve earth disturbing activities that are not on this list must also be examined for the potential to affect historic properties.

Historic Properties Eligibility Criteria

Prior to submitting your Notice of Intent (NOI) for permit coverage, you must determine which of the following eligibility criteria (A – D) best applies to your facility (if none of the four criteria apply, you cannot submit an NOI and you must apply for an individual stormwater permit). To help make your criterion selection, you must follow the historic properties screening procedures in this appendix, and then enter the criterion on your NOI.

After submitting your NOI, and during the 30-day waiting period, the public, ACHP, or SHPO authorized representative may request that EPA place a hold on authorization based upon concerns regarding potential adverse effects to historic properties. EPA, in coordination with the ACHP and/or SHPO authorized representative will evaluate any such request and notify you whether any additional measures to address potential adverse effects to historic properties are necessary.

- Criterion A: There is no potential of an adverse effect on historic properties because there will be no new ground disturbing control measures (which include stormwater conveyances) constructed or installed.
- Criterion B: There are no historic properties or properties eligible for listing in the National Register of Historic Places within the area of potential effects (APE).
- Criterion C: My subsurface stormwater controls have the potential to cause adverse effects on historic properties. After contacting in writing the EPA Regional office and the appropriate SHPO representative, I have coordinated with the SHPO authorized representative (or EPA in coordination with the SHPO authorized representative), and I received a written conclusion that my subsurface stormwater controls will not cause adverse effects on historic properties; or I have entered into a written agreement with the SHPO authorized representative (or EPA in coordination with the SHPO authorized representative) regarding measures required to mitigate or prevent adverse effects on historic properties.
- Criterion D: My subsurface stormwater controls have the potential to cause adverse effects on historic properties. I have contacted both the EPA Regional office and the SHPO

authorized representative in writing, and EPA provided the additional measures, if any, required for me to be eligible for permit coverage.

You are reminded that you must comply with applicable Commonwealth of Puerto Rico and local laws concerning protection of historic properties and include documentation supporting your determination of permit eligibility in your Stormwater Management Program.

Historic Property Screening Process

You should follow the following screening process in order to certify your compliance with historic property eligibility requirements under this permit. The following four steps describe how applicants can meet the permit eligibility criteria for protection of historic properties under this permit:

Step One: Are you a municipality that is reapplying for certification under the 2016 Small MS4?

If you are a municipality previously covered by the 2006 Small MS4 General Permit, you should have already addressed NHPA issues. To gain coverage under the 2006 Small MS4 General Permit you were required to certify that you were either not affecting historic properties or had obtained written agreement from the relevant SHPO regarding methods of mitigating potential impacts. As long as you are not constructing or installing any new stormwater control measures then you have met eligibility Criterion A of the Small MS4 General Permit. After you submit your NOI, there is a minimum 30-day public notice period during which the SHPO may review your NOI. The SHPO may request that EPA hold authorization based on concerns about potential adverse impacts to historic properties.

If you are an existing municipality and will construct or install stormwater control measures that require ground disturbing activities of less than 1 acre then you should proceed to Step Two.

(Note: Construction activities disturbing 1 acre or more are not eligible for coverage under this permit.)

If you are a municipality not covered by the previous permit, then you should proceed to Step Two.

Step Two: Are you constructing or installing any stormwater control measures that require ground disturbing activities of less than 1 acre?

If, as part of your coverage under this permit, you are not building or installing control measures on your site that cause less than 1 acre of ground disturbing activities, then your discharge-related activities do not have the potential to have an effect on historic properties. You have no further obligations relating to historic properties. You have met eligibility Criterion A of the Small MS4 General Permit. However, if at any time during the permit term you determine a subsurface control measure is needed and you initially chose eligibility Criterion A, you must

ensure your eligibility for continued authorization to discharge is maintained before any subsurface disturbance occurs by performing the procedures in Step Three through Five

If the answer to the Step Two question is yes, then you should proceed to Step Three.

Step Three: Within your APE determine whether: a) there is a property listed in the National Register of Historic Places; or b) prior earth disturbances, surveys or other activity revealed the existence of a historic property or provided evidence that a historic property may exist?

Under this step you must consider the APE associated with your ground disturbance for both of the cases a) and b) below. The APE for your discharge-related activities is limited to the area where you construct, install or alter ground controls to comply with the Small MS4 GP. Therefore, you only need consider the location of the actual ground disturbance and the depth of the disturbance (i.e., for a swale that you excavated down to one foot, you only need consider the presence of historic properties down to one foot).

a) Determine whether your APE includes any portion of a property listed in the National Register of Historic Places. Listed properties can be identified via the National Register of Historic Places website at www.nps.gov/nr/. Note the National Register of Historic Places website may not be up-to-date or that the connection between your APE and a listed historic property may not be apparent. For any questions regarding listings in the National Register of Historic Places you should contact your SHPO or an authorized representative.

If the result of your inquiry is yes then proceed to Step Five. If no, you must still consider whether part b) below applies to your site.

b) Determine whether any prior earth disturbance (disturbances do not need to be related to compliance with a stormwater permit), prior survey of historic resources, or other activity has revealed the presence of historic properties (which includes properties eligible for listing in the National Register of Historic Places) or provided other evidence that a National Register-eligible historic property may exist within your APE. Evidence that a National Register-eligible historic property may exist includes any artifacts, records or remains that may have been found indicating the presence of a potential historic property even though such evidence or property has not yet been evaluated for eligibility for listing in the National Register of Historic Places.

If a prior earth disturbance, survey, or other activity has revealed the presence of historic properties or other evidence that a National Register-eligible historic property may exist within your APE proceed to Step Five.

ensure your eligibility for continued authorization to discharge is maintained before any subsurface disturbance occurs by performing the procedures in Step Three through Five

If the answer to the Step Two question is yes, then you should proceed to Step Three.

Step Three: Within your APE determine whether: a) there is a property listed in the National Register of Historic Places; or b) prior earth disturbances, surveys or other activity revealed the existence of a historic property or provided evidence that a historic property may exist?

Under this step you must consider the APE associated with your ground disturbance for both of the cases a) and b) below. The APE for your discharge-related activities is limited to the area where you construct, install or alter ground controls to comply with the Small MS4 GP. Therefore, you only need consider the location of the actual ground disturbance and the depth of the disturbance (i.e., for a swale that you excavated down to one foot, you only need consider the presence of historic properties down to one foot).

a) Determine whether your APE includes any portion of a property listed in the National Register of Historic Places. Listed properties can be identified via the National Register of Historic Places website at www.nps.gov/nr/. Note the National Register of Historic Places website may not be up-to-date or that the connection between your APE and a listed historic property may not be apparent. For any questions regarding listings in the National Register of Historic Places you should contact your SHPO or an authorized representative.

If the result of your inquiry is yes then proceed to Step Five. If no, you must still consider whether part b) below applies to your site.

b) Determine whether any prior earth disturbance (disturbances do not need to be related to compliance with a stormwater permit), prior survey of historic resources, or other activity has revealed the presence of historic properties (which includes properties eligible for listing in the National Register of Historic Places) or provided other evidence that a National Register-eligible historic property may exist within your APE. Evidence that a National Register-eligible historic property may exist includes any artifacts, records or remains that may have been found indicating the presence of a potential historic property even though such evidence or property has not yet been evaluated for eligibility for listing in the National Register of Historic Places.

If a prior earth disturbance, survey, or other activity has revealed the presence of historic properties or other evidence that a National Register-eligible historic property may exist within your APE proceed to Step Five.

Alternatively, if you substitute or modify your activities to eliminate any controls involving subsurface disturbance, you may select eligibility Criterion A on your NOI form and you have no further obligations relating to historic properties.

If a prior earth disturbance, survey, or other activity has not conclusively revealed the existence of historic properties or other evidence that a National Register-eligible historic property may exist within your APE, or if there has been no prior earth disturbance, survey, or other activity with which to make this assessment, then proceed to Step Four.

Step Four: Determine whether any historic properties identified in Step Three may be located within your APE in coordination with your SHPO or authorized representative, or by retaining a qualified consultant in the historical or archaeological fields.

Step Four assumes that the APE for your intended ground control measures does not include any site listed in the National Register of Historic Places and that a prior earth disturbance, survey, or other activity has not revealed the presence of historic properties or other evidence that a National Register-eligible historic property may exist within your APE. In these circumstances, you must still determine, in coordination with the relevant SHPO or authorized representative or a qualified professional consultant, whether any properties eligible for listing in the National Register of Historic Places exist within your APE.

You may contact your appropriate SHPO or authorized representative to request their help in determining the presence of historic properties, or alternatively, you may opt to contact a qualified consultant in the historical or archaeological fields without first contacting the SHPO or authorized representative. If the SHPO or authorized representative indicates to you within thirty (30) calendar days after your contact that they are unable to provide you assistance, then you must engage the services of a qualified professional consultant. If the SHPO or authorized representative does not respond within thirty (30) days after your contact, you may assume there are no historic properties or National Register of Historic Places-eligible property within your APE, and you may certify your eligibility under Criterion B on your NOI form, and you have no further obligations relating to historic properties.

The SHPO or authorized representative and/or a qualified professional consultant can assist your analysis and determination in many ways, including examining local records to determine whether historic artifacts have been found in nearby areas, conducting surveys of your APE, and performing limited surface and subsurface examinations. Your historic resource survey assistance provider and results must be documented and retained per Part 1.10 of the Small MS4 GP.

If, after completion of a historic resource survey, you determine there are no historic properties within your APE, you may select eligibility Criterion B. If you determine there are, or may be, historic properties within your APE, continue to Step Five.

Alternatively, if you substitute or modify your activities to eliminate any controls involving ground disturbance, you may select eligibility Criterion A on your NOI form and you have no further obligations relating to historic properties.

Step Five: Contact the EPA and appropriate historic preservation authorities.

If you intend to build, install and/or alter ground control measures affecting less than 1 acre of land to control stormwater or allowable non-stormwater discharges associated with this permit, and the answer to Step Three is no, then you should contact the relevant SHPO to determine the likelihood that artifacts, records, or remains are potentially present on your site. This may involve examining local records to determine if historic artifacts have been found in nearby areas, as well as limited surface and subsurface examination carried out by qualified professionals.

If through this process it is determined that such historic properties potentially exist and may be impacted by your construction or installation of control measures, you should contact in writing EPA and also the relevant SHPO and request to discuss mitigation or prevention of any adverse effects. The letter should describe the nature and location of ground disturbing activities that are contemplated, any known or suspected historic properties in the area, and any anticipated effects on such properties. The letter should state that if the SHPO does not respond within 30 days of receiving your letter, you may submit your NOI. EPA encourages applicants to contact the appropriate authorities as soon as possible in the event of a potential adverse effect to a historic property.

If the SHPO sent you a response within 30 days of receiving your letter and you enter into, and comply with, a written agreement with the SHPO regarding how to address any adverse impacts on historic properties, you have met eligibility Criterion C. After you submit your NOI, there is a minimum 30-day public comment period during which the SHPO may review your NOI. The SHPO may request that EPA hold authorization based on concerns about potential adverse impacts to historic properties.

If you receive a response within 30 days after the SHPO received your letter but an agreement cannot be reached between you and the SHPO you should contact EPA.

If you have contacted the SHPO and EPA in writing regarding your potential to have an effect on historic properties and the SHPO did not respond within 30 days of receiving your letter, you have met eligibility Criterion D. After you submit your NOI, there is a minimum 30-day public comment period during which the SHPO or other representative may review your NOI. The SHPO may request that EPA hold authorization based on concerns about potential adverse impacts to historic properties.

Addresses for State Historic Preservation Officers may be found on the Advisory Council on Historic Preservation's website (<http://www.achp.gov/programs.html>).

Alternatively, if you substitute or modify your activities to eliminate any controls involving ground disturbance, you may select eligibility Criterion A on your NOI form and you have no further obligations relating to historic properties.

Step Five: Contact the EPA and appropriate historic preservation authorities.

If you intend to build, install and/or alter ground control measures affecting less than 1 acre of land to control stormwater or allowable non-stormwater discharges associated with this permit, and the answer to Step Three is no, then you should contact the relevant SHPO to determine the likelihood that artifacts, records, or remains are potentially present on your site. This may involve examining local records to determine if historic artifacts have been found in nearby areas, as well as limited surface and subsurface examination carried out by qualified professionals.

If through this process it is determined that such historic properties potentially exist and may be impacted by your construction or installation of control measures, you should contact in writing EPA and also the relevant SHPO and request to discuss mitigation or prevention of any adverse effects. The letter should describe the nature and location of ground disturbing activities that are contemplated, any known or suspected historic properties in the area, and any anticipated effects on such properties. The letter should state that if the SHPO does not respond within 30 days of receiving your letter, you may submit your NOI. EPA encourages applicants to contact the appropriate authorities as soon as possible in the event of a potential adverse effect to a historic property.

If the SHPO sent you a response within 30 days of receiving your letter and you enter into, and comply with, a written agreement with the SHPO regarding how to address any adverse impacts on historic properties, you have met eligibility Criterion C. After you submit your NOI, there is a minimum 30-day public comment period during which the SHPO may review your NOI. The SHPO may request that EPA hold authorization based on concerns about potential adverse impacts to historic properties.

If you receive a response within 30 days after the SHPO received your letter but an agreement cannot be reached between you and the SHPO you should contact EPA.

If you have contacted the SHPO and EPA in writing regarding your potential to have an effect on historic properties and the SHPO did not respond within 30 days of receiving your letter, you have met eligibility Criterion D. After you submit your NOI, there is a minimum 30-day public comment period during which the SHPO or other representative may review your NOI. The SHPO may request that EPA hold authorization based on concerns about potential adverse impacts to historic properties.

Addresses for State Historic Preservation Officers may be found on the Advisory Council on Historic Preservation's website (<http://www.achp.gov/programs.html>).

Puerto Rico - State Historic Preservation Office is located at:
End of Norzagaray Street, corner of Morovis Street
Cuartel de Ballajá, 3er Floor
Old San Juan, Puerto Rico

National websites for historical preservation Information home page:
<http://www.oech.gobierno.pr>

Mailing address:
State Historic Preservation Office
P.O. Box 9023935
San Juan, Puerto Rico 00902-3935

Telephone: (787) 721-3737

Appendix E

Impaired Water Data Tool

For many years, EPA has collected information on healthy and polluted waterways that States and territories report under the Clean Water Act. Tens of thousands of polluted waters have been identified nationally, and much has been done to reduce pollution risks to people's health, the economy and the environment. However, many Americans care the most about their local lake or stream rather than the thousands of waters described in national statistics. People want an easy way to learn about their local waters, pollution problems, why they matter, and what's being done to restore and protect them. Rather than sifting through baffling scientific information stored in complex databases, an average citizen might say, "All I really want to know is: how's MY waterway? And please tell me in words I understand." EPA developed *How's My Waterway* to provide answers quickly and clearly, anywhere at anytime.

How's My Waterway is a new EPA tool that helps users find information on the condition of their local waters quickly using a smart phone, tablet, or desktop computer. This tool for technical and non-technical users offers easy access, a local-area focus, plain-English terms and descriptions, and results within seconds, based on the same technical data found in EPA's water quality data system, ATTAINS.

Permittees and the public can retrieve information on assessments and reported condition of local waters for anywhere in the nation by searching based on zip code or place name. Results include a list and map of the waters within a roughly 5-mile radius, including which waters are assessed and polluted or healthy based on the most recent State reporting under the Clean Water Act. Selecting a specific waterway from the list or map then shows the pollutants reported, TMDL cleanup plans completed, and nonpoint pollution control projects in the area.

How It Works

- **SEARCH:** use a smart phone to find out about a lake, river, or stream while standing right at the water's edge. Or check on any location in the US by entering a zip code or place name on your computer, smart phone or tablet.
- **RETRIEVE:** instantly receive a list of waterways within about five miles of the search location. Each waterway is identified as unpolluted, polluted, or unassessed, along with the year its condition was reported. A map option offers a view of the search area with the waters color-coded by assessment status. Zoom in for more details or pan across the map to check on new areas and new waters.

- **DISCOVER:** once you select a specific waterway from the map or the list of waters, the app and website offer more detailed results, including the type of pollution reported and what has been done by EPA and the States to reduce it. Technical users can follow links to detailed online scientific assessment reports.
- **LEARN:** read simple, non-technical descriptions of each type of water pollutant. These include what the pollutant is, where it comes from, how it can harm the environment, human health, or valuable economic uses of the waterway, and what you can do to help.
- **FIND:** looking for even more? The related links page connects you to popular water information on beaches, drinking water, fish habitat projects, and more!

Where does the water quality information in *How's My Waterway* come from?

The Clean Water Act requires States, territories and authorized tribes (here called States for brevity) to monitor water pollution and report to EPA every two years on the waters they have evaluated. This process is called assessment. Part of this process is deciding which waters do not meet water quality standards because they are too polluted. These degraded waters are called impaired (polluted enough to require action) and are placed on a State list for future actions to reduce pollution. *How's My Waterway* local information includes whether and when a waterway was assessed, what pollution may exist, and what has been done to improve conditions.

Visit *How's My Waterway* at: www.epa.gov/mywaterway.

