U.S. Environmental Protection Agency
Region 2
2022 Proposed Reissuance of the

National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Small Municipal Separate Storm Sewer Systems in the Commonwealth of Puerto Rico

Fact Sheet

ACTION: Notice of Proposed NPDES general permit

Public Comment

EPA is soliciting comment on the proposed 2022 Small Municipal Separate Storm Sewer System General Permit (Small MS4 GP 2022). Comments on any provision of the permit, or comments on the fact sheet discussion are welcome. The comment period is open for forty-five (45) days from publication of the Notice in the Federal Register (FRL 9467-01-R2). All public comments must be received on or before [DATE OF FEDERAL REGISTER NOTICE + 45 days]. Please send comments to EPA in the following ways:

- By Mail:
  Multimedia Permits and Compliance Branch
  U.S. Environmental Protection Agency, Region 2
  City View Plaza II – Suite 7000
  #48 Road 165 Km 1.2, Guaynabo, PR, 00968-8069
  Attention Small MS4 GP 2022

- By e-mail: bosques.sergio@epa.gov. These electronic submissions will be accepted in Microsoft Word or Adobe Acrobat file format. Avoid the use of special characters and any form of encryption.

In lieu of, or in addition to, the submission of comments as above provided, any interested persons may request a public hearing. Any request for a public hearing under Title 40 of the Code of Federal Regulations (40 C.F.R.) § 124.12, on EPA's draft general permit must be in writing, state the nature of the issues proposed to be raised in the hearing, and be submitted to the Director, Caribbean Environmental Protection Division Office, USEPA Region 2, City View Plaza II, Suite 7000, #48 Road 165 Km 1.2, Guaynabo, Puerto Rico 00968-8069, by no later than 45 days from the date of the Federal Register notice. EPA's decision on the question of whether to hold a public hearing on the draft NPDES permits, the administration of any hearing and the rights and obligations of participants are governed by regulations at 40 C.F.R. § 124.12. If EPA holds a public hearing, the public comment period in this Notice shall automatically be extended to the close of the public hearing.

If EPA does not hold a public hearing or reopen the comment period, EPA shall consider the issuance of a final permit as soon as possible after the date indicated above for the submission of comments. All timely comments, submitted by interested persons in response to this Notice, and statements and other evidence properly submitted at any public hearing held by EPA shall be considered in making the final decision with respect to these permit applications. All comments shall be answered as provided in 40 C.F.R. § 124.17. The Applicant(s) and any other person who submits timely written comments or requests notice of a final permit decision shall receive notice of EPA's final decision. Within 30 days of service of such final permit notice, any interested person who has submitted timely written comments may file a notice of appeal and petition for review to the Environmental Appeals Board to review any condition of the permit decision. Any person who failed to file comments or failed to participate in the public hearing on the draft permit may petition for review only to the extent of the changes from the draft to the final permit decision. Any such appeal must meet the requirements of 40 C.F.R. § 124.19. Persons affected by an NPDES general permit

may not file a petition under this section or otherwise challenge the conditions of the general permit in further Agency proceedings. They may, instead, either challenge the general permit in court, or apply for an individual NPDES permit under 40 C.F.R. § 122.21, as authorized in 40 C.F.R. § 122.28, and then petition the Board for review as provided by this section.

Documents that are hand-carried may be delivered to the Clerk of the Board from 8:30 a.m. to 12:00 p.m. and from 1:00 p.m. to 4:30 p.m., Monday through Friday (excluding federal holidays) at the following address:

Clerk of the Board
U.S. Environmental Protection Agency
Environmental Appeals Board
1200 Pennsylvania Avenue, NW
Mail Code 1103M
Washington, DC 20460-0001

Carmen R. Guerrero-Pérez, Director
Caribbean Environmental Protection Division
U.S. Environmental Protection Agency
Region 2

Table of Contents

1.0 Introduction and Background

Section 405 of the Water Quality Act of 1987 (WQA) added section 402(p) of the Clean Water Act (CWA), which directed the Environmental Protection Agency (EPA) to develop a phased approach to regulate stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) program. EPA published a final regulation on the second phase on this program on December 8, 1999, expanding the existing NPDES stormwater program (Phase I) to address stormwater discharges from small municipal separate storm sewer systems (MS4s) (those serving less than 100,000 persons), and construction sites that disturb one to five acres.

The Director of Caribbean Environmental Protection Division of EPA Region 2 is proposing, today, to reissue EPA's NPDES General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (Small MS4 GP 2022) into waters of the Commonwealth of Puerto Rico. This general permit, Small MS4 GP 2022, when finalized, will replace the Small MS4 GP 2016, which was issued on June 13, 2016 (81 FR 38175), and expired on June 30, 2021.

The Small MS4 GP 2016 is administratively continued, in accordance with 40 C.F.R. § 122.6, and remains in force and effect. Therefore, if you were authorized to discharge under the Small MS4 GP 2016 prior to the expiration date, any discharges authorized under the 2016 permit will automatically remain covered by that permit until the earliest of:

- Your authorization for coverage under a reissued permit or a replacement of this permit following your timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and compliance with the requirements of the new permit; or
- Issuance or denial of an individual permit for the facility's discharges. Coverage under the Small MS4 GP 2016 will cease at the end of this time period.

The Small MS4 GP 2016 allows coverage for 88 small MS4s within the Commonwealth of Puerto Rico. This amount also includes public universities, state agencies and federal facilities.

The draft Small MS4 GP 2022 consists of the following parts:
Part 1: Coverage under this Permit
Part 2: Non-Numeric Effluent Limitations
Part 3: Program Evaluation, Recordkeeping, and Reporting
Part 4: Non-Conventional MS4s – Commonwealth of Puerto Rico and Federal Facilities
Part 5: Non-Conventional MS4s – Commonwealth of Puerto Rico Department of Transportation and Public Works
Part 6: Non-Conventional MS4s – Commonwealth of Puerto Rico Department of Natural and Environmental Resources
Part 7: Additional Program Certification Requirement

Appendices:
A: Definitions, Abbreviations and Acronyms
B: Standard permit conditions applicable to all permits (40 C.F.R. —§ 122.41)
C: Conditions related to the Endangered Species Act (ESA)
D: Conditions related to the National Historic Preservation Act (NHPA)
E: Impaired Waters Information
F: Information required on the Notice of Intent (NOI)

Today's proposed Small MS4 GP 2022 accompanies this fact sheet. The fact sheet does not discuss every provision of the proposed permit, especially if the provision is straight-forward, easily understood and has not changed from the Small MS4 GP 2016. However, a number of provisions in the Small MS4 GP 2022 are worthy of explanation. For example, electronic filing of reports. EPA invites comment on any of these proposed provisions, as well as any other provision of the proposed permit. Where commenters are concerned about specific provisions of this permit, EPA requests that the commenter suggests specific alternatives.

1.1 Program Background

The conditions in the draft permit are established pursuant to Clean Water Act (CWA) Section 402(p)(3)(B)(iii) to ensure that pollutant discharges from small municipal separate storm sewer systems (small MS4s) are reduced to the maximum extent practicable (MEP), protect water quality, and satisfy the appropriate water quality requirements of the CWA. A small municipal separate storm sewer system means all separate storm sewers that are:

"(1) 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, stormwater, or other wastes including special districts under state law, such as a sewer, 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 United States.

(2) Not defined as "large" or "medium" municipal separate storm sewer systems pursuant to 40 C.F.R. § 122.26(b)(4) or (b)(7), respectively, or designated under 40 C.F.R. § 122.26(a)(1)(v).

(3) This term includes systems similar to separate storm sewer systems in municipalities such as 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. For example, an armory located in an urbanized area would not be considered a regulated small MS4." (See 40 C.F.R. § 122.26(b)(16)).

Part 2.4 of the Small MS4 GP 2022 sets forth the requirements for the MS4 to "reduce pollutants in discharges to the maximum extent practicable [MEP], including management practices, control techniques,

and system, design and engineering methods . . . ." (See Section 402(p)(3)(B)(iii) of the CWA). MEP is the statutory standard that establishes the level of pollutant reductions that MS4 operators must achieve. EPA believes implementation of best management practices (BMPs) designed to control stormwater runoff from the MS4 is generally the most appropriate approach for reducing pollutants to satisfy the technology standard of MEP. Pursuant to 40 C.F.R. § 122.44(k), the draft Small MS4 GP 2022 contains BMPs, including development and implementation of a comprehensive stormwater management program (SWMP) as the mechanism to achieve the required pollutant reductions.

Section 402(p)(3)(B)(iii) of the CWA also authorizes EPA to include in an MS4 permit "such other provisions as [EPA] determines appropriate for control of … pollutants." EPA believes that this provision forms a basis for imposing water quality-based effluent limitations (WQBELs), consistent with the authority in Section 301(b)(1)(C) of the CWA. *See, Defenders of Wildlife v. Browner*, 191 F.3d 1159 (9th Circuit 1999); *see also,* EPA's preamble to the Phase II regulations, 64 Fed. Reg. 68722, 68753, 68788 (Dec 8, 1999). Accordingly, Part 2.1 of the draft permit contains the water quality-based effluent limitations, expressed in terms of BMPs, which EPA has determined are necessary and appropriate under the CWA.

EPA, Region 2 issued a final general permit to address stormwater discharges from small MS4s on November 6, 2006, and on June 13, 2016. The Small MS4 GP 2016 required small MS4s to modify the developed and implemented SWMP designed to control pollutants to the maximum extent practicable (MEP), and protect water quality. The SWMP was to be fully implemented by the time the Small MS4 GP 2016 expired. This draft Small MS4 GP 2022 continues to build on the requirements of that previous general permit.

Neither the CWA nor the stormwater regulations provide a precise definition of MEP. The lack of a precise definition allows for maximum flexibility in MS4 permitting. Small MS4s need flexibility to optimize reductions in stormwater pollutant loads on a location-by-location basis. The process of optimization will include consideration of factors such as receiving waters, specific local concerns, size of the MS4, climate, and other aspects. Pollutant reductions that represent MEP may be different for each small MS4 given the unique hydrologic and geologic concerns or features that may exist. EPA views the MEP standard in the CWA as an iterative process, as the MEP should continually adapt to current conditions and BMP effectiveness. EPA believes that compliance with the requirements of this draft permit will meet the MEP standard. The iterative process of MEP consists of a municipality developing a program consistent with specific permit requirements, implementing the program, evaluating the effectiveness of BMPs, included as part of the program, then revising those parts of the program that are not effective at controlling pollutants, implementing those revisions, and evaluating again. This process continues until the goal of meeting water quality requirements is achieved. The changes contained in the draft general permit reflect the iterative process of MEP. Accordingly, the draft general permit continues to contain the specific tasks and details as required in the Small MS4 GP 2016. Any specific changes are discussed later in the fact sheet.

1.2 Consideration of Other Federal Programs

When EPA undertakes an action, such as the reissuance of an NPDES permit, that action must be consistent with other federal laws and regulations. For example, 40 C.F.R. § 122.49 contains a listing of Federal laws that may apply to the issuance of NPDES permits. This section discusses three federal laws that apply to the reissuance of these general permits: the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA), and the Coastal Zone Management Act (CZMA). The requirements of these laws, and EPA's obligations with regard to them, are discussed in the following paragraphs. Executive Orders and other administrative laws that may apply to the issuance of NPDES permits are discussed in Part 4.0 of this fact sheet.

Endangered Species Act

The Endangered Species Act (ESA) of 1973 requires federal agencies, such as the EPA, to ensure, in consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (collectively known as "the Services"), to make sure that any actions authorized, funded or carried out by the agencies are not likely to jeopardize the continued existence of any federally-listed endangered or threatened species, or adversely modify or destroy critical habitat of such species (see, 16 U.S.C § 1536(a)(2), 50 C.F.R. § 402, and 40 C.F.R. § 122.49(c)).

In order to be eligible for this draft general permit, permittees must certify that none of their stormwater discharges, allowable non-stormwater discharges, or discharge-related activities are likely to affect a threatened or endangered species. The draft general permit contains five criteria for eligibility certification. These criteria are contained in Appendix C of the draft general permit. The permittee must document its eligibility determination based on one of the criteria and maintain it as part of the SWMP. The permittee must also certify eligibility as part of the NOI requirements.

In order for EPA to meet its obligations and promote the goals of the CWA and the ESA, EPA seeks to ensure the activities regulated by these general permits are not likely to adversely affect endangered and threatened species and critical habitat.

Small MS4s applying for permit coverage must assess the impacts of their stormwater discharges and discharge-related activities on Federally-listed endangered and threatened species ("listed species") and designated critical habitat ("critical habitat") to ensure that the goals of the ESA are met. Prior to obtaining general permit coverage, small MS4s must meet the ESA eligibility provisions of this permit.

EPA strongly recommends that small MS4s follow the guidance in Appendix C of the general permit at the earliest possible stage to ensure eligibility requirements for general permit coverage are complete upon NOI submission.

Small MS4s also have an independent ESA obligation to ensure that their activities do not result in any prohibited "takes" of listed species[1] . Many of the measures required, in this general permit and in the instructions of Appendix C, to protect species may also assist in ensuring that the MS4's activities do not result in a prohibited take of species in violation of section 9 of the ESA. If the permittee has plans or activities in an area where endangered and threatened species are located, it 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. Small MS4s that are unsure whether to pursue a section 10 permit or a section 7 consultation for takings protection should confer with the appropriate USFWS[2] office or the NMFS office located in Cabo Rojo, Puerto Rico. You may find the endangered species list at: http://www.fws.gov/caribbean/es/Endangered-Main.html and http://www.nmfs.noaa.gov/pr/species/esa/.

Any small MS4 seeking coverage under this general permit must consult with the Services. EPA is authorized to designate non-Federal representatives for the general permit for the purpose of carrying out informal consultation with NMFS and USFWS (see, 50 C.F.R. § 402.08 and § 402.13). By terms of this permit, EPA has automatically designated small MS4 operators as non-federal representatives for the purpose of conducting informal consultations. Permit coverage is only available if the applicant of the small MS4 contacts the Services to determine if the discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat, and informal consultation with the Services has been concluded and results in written concurrence by the Services that the discharge is not likely to adversely affect an endangered or threatened species.

Before submitting an NOI for coverage by this permit, an applicant of the small MS4 must determine whether the small MS4 meets the ESA eligibility criteria by following the steps in Appendix C. If the small MS4s that cannot meet any of the eligibility criteria, the applicants must apply for an individual permit.

The paragraphs below are the ESA eligibility criteria contained in Appendix C of the permit. A MS4 must meet one of the criteria to be eligible for this permit.

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 is in proximity to the storm water discharges or discharge-related activities.

[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.

Criterion B: In the course of a separate federal action involving the small MS4, formal or informal consultation with the USFWS and/or the NMFS under Section 7 of the ESA has been concluded and that consultation: (1) addressed the effects of the stormwater 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 stormwater 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 stormwater 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 stormwater 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 C.F.R. § 17.22(b) (1) for USFWS, and § 222.22 for NMFS). Application instructions for Section 10 permits can be obtained by assessing the appropriate websites (www.fws.gov and http://www.fisheries.noaa.gov/) or by contacting the appropriate regional office.

Criterion D: The stormwater discharges and discharge-related activities were already addressed in another operator's certification of eligibility, which includes the small MS4's stormwater discharges and discharge-related activities.

Criterion E: Using the best scientific and commercial data available, the effect of the stormwater 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 stormwater discharges and discharge-related activities are not likely to adversely affect any federally threatened or endangered listed species or designated critical habitat.

Section 7 of the ESA provides for formal and informal consultation with the Services. For NPDES permits issued by EPA, draft permits and fact sheets are routinely submitted to the Services for informal consultation prior to issuance. EPA will initiate an informal consultation with the Services during the public notice period of the general permit.

This general permit authorizes stormwater discharges from municipal separate storm sewer systems which consist of runoff from precipitation events that is collected from streets, parking lots, sidewalks and other impervious areas and discharged to a surface water. Stormwater from small MS4s may contain bacteria, nutrients, and heavy metals. The general permit excludes coverage to small MS4s whose discharges are likely to adversely affect any species that is listed as endangered or threatened under the ESA, or result in the adverse modification or destruction of habitat that is designated as critical under the ESA. The proposed permit requirements are sufficiently stringent to assure protection of aquatic life.

Small MS4 discharges that are located in areas in which listed endangered or threatened species may be present are not automatically covered under this general permit. Small MS4s discharging into areas where

these species are found must ensure and document eligibility. Small MS4s unable to document eligibility must apply for an individual permit. Applicants with discharges to those locations must contact the Services to determine whether additional consultation with the Services is needed.

Coverage under the general permit is available only if the applicant certifies and documents permit eligibility using one of the eligibility criterion listed above and in Appendix C of the general permit.

EPA has requested concurrence from the Services that the draft general permit is protective.

National Historic Preservation Act

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 C.F.R. § 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 C.F.R. § 800.16(1).

EPA's reissuance 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 reissuance of the general permit, EPA has included eligibility criteria, see Appendix D of the draft permit, for permittees to certify that potential impacts of their activities covered by this permit on historic properties have been appropriately considered and addressed. Although individual NOIs 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 reissuance of the general permit. MS4s seeking coverage under this 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.

A permittee must meet one or more of the following four criteria (A-D) to be eligible for coverage under this permit:

Criterion A. Stormwater discharges and allowable non-stormwater discharges do not have the potential to have an effect on historic properties and the permittee is not constructing or installing stormwater control measures that cause less than 1 acre of subsurface disturbance; or

Criterion B. Discharge related activities (i.e., construction and/or installation of stormwater control measures that involve subsurface disturbance) do not have the potential to affect historic properties; or

Criterion C. Stormwater discharges, allowable non-stormwater discharges, and discharge-related activities have the potential to have an effect on historic properties, and the permittee has

obtained, and is in compliance with a written agreement with the State Historic Preservation Officer (SHPO) that outlines all measures the permittee will carry out to mitigate or prevent any adverse effects on historic properties; or

Criterion D. The permittee has contacted the SHPO and EPA in writing informing them that the permittee has the potential to cause an effect on historic properties, but since the permittee did not receive a response from the SHPO within 30 days of receiving the permittee's letter, the permittee can certify eligibility under Criterion D on the NOI form.

Coverage under the general permit is available only if the applicant certifies and documents permit eligibility using one of the eligibility criteria listed above and in Appendix D of the general permit. Permittees are reminded that they must comply with applicable State and local laws concerning protection of historic properties, and include documentation supporting the determination of permit eligibility in the SWMP.

Electronic listings of National and State Registers of Historic Places are maintained by the National Park Service http://www.nps.gov/subjects/nationalregister/index.htm and the Puerto Rico Historic Preservation Office http://www.oech.pr.gov/.

EPA has requested concurrence from the State that the draft general permit is protective.

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA), l6 U.S.C. §§ l45l *et seq*., and its implementing regulations, 15 C.F.R. Part 930, require that any federally licensed activity affecting a state's coastal zone be consistent with the enforceable policies of approved state management programs. In the case of general permits, EPA has the responsibility for making the consistency determination and submitting it to the State for concurrence.

In order for the Small MS4 general permit to be consistent with the maximum extent practicable (MEP) policy, EPA may prohibit any discharge that will cause, or have the reasonable potential to cause or contribute to an excursion above any applicable water quality standards, and require the development and implementation of a SWMP. The draft permit requires MS4s to meet non-numerical effluent limitation; including water quality–based limitations described in Part 2.2 of the draft permit. The SWMP consists of control measures described in Part 2.3 and 2.4 of the draft permit. These requirements when implemented are designed to protect the waters of the coastal and estuarine environments, and related-land resources.

EPA has requested concurrence from the State that the draft general permit is protective.

2.0 General Permit Authority

Section 301(a) of the Act, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants from a point source into waters of the United States, except in compliance with certain sections of the Act including, but not limited to, Section 402 of the Act, 33 U.S.C. Section § 1342. Section 402 of the Act provides that the Administrator of the EPA the delegation to issue NPDES permits for discharges of any pollutant into waters of the United States according to such specific terms and conditions as the Administrator may require. Although such permits are generally issued to individual discharges, EPA's regulations authorize the issuance of "general permits" to cover one or more categories or subcategories of discharges, including stormwater point source discharges, within a geographic area (see 40 C.F.R. §§ 122.28(a)(1) and (a)(2)(i)). EPA issues general permits under the same CWA authority as individual permits. Violations of a general permit condition constitute a violation of the CWA, and may subject the discharger to the enforcement remedies provided in Section 309 of the Act, including injunctive relief and penalties.

Types of Permittees

Conventional MS4 Programs
Many MS4 operators permitted under the NPDES program are city governments. To evaluate this type of an MS4 program, an evaluator must have a basic understanding of the structure, operation, and function of local governments. The structure and authority of local governments can vary by state (for example, the stages of autonomy), therefore a general description of a common city/local government structure is provided below.

Cities provide a variety of functions including fire, natural disaster and police protection, construction and maintenance of streets, stormwater and wastewater services, and health, recreation, and social needs. Cities are governed by a city council that establishes municipal policy and enacts local ordinances. Many cities are run by the mayor-council system, where a mayor (either elected or appointed by the council) works with the council to direct city departments and implement policy. Some cities are run by the council-manager system, where the elected council appoints a full-time professional manager to direct city departments and implement policy.

Stormwater management responsibilities vary depending on the city or local government. Some permittees assign stormwater program oversight and implementation to the public works department, while others assign stormwater to an environmental services department. Still others combine stormwater program implementation with planning departments, flood control authorities, or other municipal entities. Also, some municipalities perform stormwater activities within the cities (such as inspections). Each permittee should clearly describe in the SWMP Plan the roles and responsibilities of each department involved in stormwater management.

Non-Conventional MS4 Programs
As stated previously, the term MS4 does not solely refer to municipally-owned storm sewer systems. Examples include, but are not limited to, non-conventional entities such as state departments of transportation (DOTs), public universities, local sewer districts, hospitals, military installations, prisons, or flood control/irrigation districts.

Because of the unique structure and features of many non-conventional MS4s, some of the traditional SWMP elements may need to be modified or may not be entirely applicable. For example, a public

education program for a state DOT or military base would be very different for a traditional city/municipality.

In other instances, some non-conventional MS4s may lack the legal authority or employ a different type of enforcement mechanism than a city/municipal government when implementing a SWMP component. For example, a state DOT may not have the legal authority to enforce controls on illicit discharges into its system. In these situations, the DOT is encouraged to work with the neighboring regulated-permittees to develop and implement a shared SWMP in which each permittee is responsible for activities that are within their individual legal authorities and abilities. The DOT could work closely with the permittees that surround the DOT MS4 (i.e., municipality or city), and use each use their enforcement authority to eliminate illicit discharges. In other words, a municipal permittee can utilize regulations, which prohibit polluted runoff from leaving an individual property and entering the DOT MS4, if the property is covered under an appropriate municipal code (e.g., building, health, etc.). An evaluation of a non-conventional MS4 program must be very specific to the particular circumstances, permittee relationships, and applicable permit requirements.

2.1 Notice of Intent (NOI) Requirements

Before a small MS4 can be authorized to discharge stormwater under a general permit, it must submit a written notice of intent (NOI). The specific contents of the NOI are included in Appendix F of the draft general permit.

Forty C.F.R. § 122.33 requires that the small MS4 operator who applies for a general permit to submit information on BMPs and measurable goals designed to meet the minimum control measures required by 40 C.F.R. § 122.34(d). The NOI requirements of this draft general permit are slightly different than the NOI for the Small MS4 GP 2016. The initial NOI, for the 2016 permit, required the operator of the small MS4 to submit information on the BMPs for the SWMP it planned to develop over the five year permit term. The NOI requirements of this draft permit are based on the presumption that the programs outlined in the 2016 NOI are now developed and are being implemented, so the NOI requirements build on those requirements implemented in the previous permit.

Part 1.7.2 of the general permit clarifies the method by which operators are to submit their NOIs for permit coverage. Previous acceptance of paper NOIs has been changed to encourage the use of electronic submission of the NOI, which is compatible with the NPDES e-Reporting Rule (https://www.epa.gov/compliance/npdes-ereporting), unless the EPA Regional approval is given. Electronic submittal requirements are detailed in Parts 1.7.2 and 3.4.1 of the general permit.

All existing dischargers must submit NOIs to EPA, Region 2 ninety (90) days from the effective date of the general permit. EPA will place all complete NOIs on public notice for a minimum of 30 days. NOIs will be posted on the Region 2 Stormwater website: https://www.epa.gov/npdes-permits/npdes-permits-phase-2-stormwater-program-puerto-rico. During that time, EPA will accept comment from the public concerning the content of the NOI. Following the close of the comment period, EPA will either authorize the discharges or require additional information. The draft general permit states that a small MS4 is not authorized to discharge until receipt of written authorization from EPA. The draft permit also states that a small MS4 remains covered under the Small MS4 GP 2016 and will remain covered for a period of 120 days, the permittee's authorization under the previous permit can be continued beyond 120 days on an interim basis.

EPA may also deny coverage under the general permit and require an MS4 to obtain coverage under an alternative general permit or an individual permit.

2.2 Basis for Conditions of the Draft NPDES General Permit

2.2.1 Statutory Requirements

Section 301(a) of the Act, 33 U.S.C. § 1311(a), makes it unlawful to discharge pollutants from a point source to waters of the United States without a permit. Section 402 of the Act, 33 U.S.C. § 1342, authorizes EPA to issue NPDES permits allowing discharges that will meet certain specified requirements. Sections 402(p)(3)(B)(ii) and (iii) of the CWA, and the implementing regulations at 40 C.F.R. §§ 122.26 and 122.34, require NPDES permits for stormwater discharges from MS4s to effectively prohibit non-stormwater discharges into the sewer system, and controls to reduce pollutant discharges to the maximum extent practicable, including BMPs and other provisions as EPA determines to be appropriate for the control of such pollutants. EPA interprets this latter clause to authorize the imposition of water quality based effluent limitations.

2.2.2 Coverage under the Permit

This general permit is applicable to public operations and federal facilities within the either a particular area or particular entities within a geographic area of the Commonwealth of Puerto Rico. This draft general permit covers stormwater discharges from small municipal separate storm sewer systems meeting the definition of "small municipal separate storm sewer system" at 40 C.F.R. § 122.26(b)(16), and designated under 40 C.F.R. § 122.32(a)(1) (applicable to small MS4s located in an urbanized area) or designated by EPA as needing a permit pursuant to 40 C.F.R. § 122.32(a)(2).

Most small MS4s that will be covered by this permit are located entirely within an urbanized area as defined by the Bureau of the Census. On March 2012, the Census Bureau published the final criteria used to define urbanized areas for the 2010 census. An urban area encompasses a densely settled territory that consists of core census block groups or blocks that have a population of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. Urbanized areas are not divided along political boundaries. Because of this nonpolitical division, a community may be entirely in an urbanized area or partially in an urbanized area. The Phase II regulations require a small MS4 to implement its program in the urbanized area. If a small MS4 is only partially within the urbanized area, the MS4 may decide to implement the SWMP within its entire jurisdiction, or just in the urbanized area. Both approaches are acceptable under EPA's regulations. However, EPA encourages MS4s to implement the SWMP in the entire jurisdiction.

As stated previously, the draft permit applies to small MS4s located in urbanized areas, and those determined by EPA to need a permit. EPA has authority under the CWA to regulate sources other than those that are automatically covered by the stormwater regulations when necessary to protect or remedy localized water quality impacts. These could be small MS4s not in an urbanized area, including MS4s owned by the state, or the federal government. If EPA decides to regulate additional sources, EPA will evaluate whether a stormwater discharge results in, or has the potential to result in exceedances of water quality standards, including impairments of designated uses, impacts to habitats, or biological impacts. Consistent with guidance found at 40 C.F.R. § 123.35(b)(1)(ii), EPA will make a determination concerning water quality impacts from a non-regulated small MS4 using a balanced consideration of the sensitivity of a watershed, the growth potential of an area, the population density, the contiguity to an urbanized area, and the

effectiveness of protection of water quality by other programs. If EPA decides to designate additional MS4s, EPA will provide public notice and an opportunity to comment on the designation.

In light of the updated urbanized area delineation, EPA has reviewed the newly released urbanized areas and has produced updated urbanized area maps for each of the communities located either fully or partially within the urbanized area in Puerto Rico. The revised areas are shown on the urbanized area maps available on EPA's website. (https://www.epa.gov/npdes/urbanized-area-maps-npdes-ms4-phase-ii-stormwater-permits).

2.2.3 Obtaining Authorization to Discharge

In order for a small MS4 to obtain authorization to discharge, the applicant must submit a complete and accurate NOI containing the information in Appendix F of the draft permit. The NOI must be signed in accordance with the requirements of Appendix B, Sub Paragraph 11 of the draft permit. For existing dischargers, the NOI must be submitted no later than ninety (90) days of the effective date of the issued final permit. The effective date of the permit will be specified in the Federal Register publication of the notice of availability of the final permit. Any small MS4 designated by EPA as needing a permit must submit a Notice of Intent for a permit within 180 days from the notification of determination date , unless otherwise specified. A small MS4 must meet the eligibility requirements of the permit found in Parts 1.2, 1.9 and 1.10 prior to submission of the NOI. A small MS4 will be authorized to discharge under this permit upon the effective date of coverage. The authorization date of coverage is upon receipt of written notice by EPA following a public notice of the NOI.

The draft permit provides interim coverage for permittees covered by the previous permit and whose coverage was effective upon the expiration of that permit (June 30, 2021). For those discharges covered by the pervious permit, authorization under the previous permit is continued automatically on an interim basis for up to 90 days from the effective date of the final 2022 general permit. If a permittee was covered under the previous permit and submitted a complete and accurate NOI in a timely manner, and notification of authorization under the final permit has not occurred within 120 days (90 days to submit complete and accurate NOI plus 30 day comment period of coverage) of the effective date of the final permit, the permittee's authorization under the previous permit can be continued beyond 120 days on an interim basis. Interim coverage will terminate after authorization under this permit, an alternative permit, or denial. EPA will provide an opportunity for public comment on each NOI that is submitted. Following the public notice, EPA will authorize the discharge, request additional information, or require the MS4 to apply for an alternative or individual permit.

2.2.4 Discharge Authorization Waiting Periods

Today's proposed permit includes a thirty (30) day waiting period for authorization (Part 1.7.5). The thirty (30) day period begins on the day that the electronic NOI has being certified or EPA posts the completed NOI on the Region 2 web site https://www.epa.gov/npdes-permits/npdes-permits-phase-2-stormwater-program-puerto-rico. The purpose of the thirty (30) day wait is twofold: 1) to provide U.S. Fish and Wildlife Service and National Marine Fisheries Service (the Services) an opportunity to review the proposed coverage under the general permit for protection of threatened and endangered species, and critical habitat consistent with the goals of the Endangered Species Act; and 2) to provide the public an opportunity to comment on the coverage under the general permit.

EPA is establishing a thirty (30) day public comment opportunity in response to an expressed public desire to provide input on permittees. Anyone wishing to comment on an NOI, or the relevant proposed coverage,

may submit comments. EPA clarifies that this thirty (30) day period is not a formal permit public notice period like the one the Small MS4 GP 2022 is undergoing right now. However, in the interest of providing the public a chance to comment on individual discharges, EPA will consider any comments received during the thirty (30) day period. EPA does not plan to provide formal responses to comments or documents received. However, EPA will review comments, and if there is valid concern about the proposed discharge, EPA will take the necessary steps to address the concern, e.g., require the relevant MS4 operator to make improvements to the Stormwater Management Program (SWMP). Depending on the nature of the issue and the timing of the comments, EPA will require appropriate action either prior to or following the discharge authorization. In addition, EPA may delay authorization if comments received warrant such a delay, or may determine that the discharge is not eligible for authorization under the Small MS4 GP 2022. The potential burden of taking public comments on dischargers requesting authorization under this general permit is very significant to EPA, and thus, EPA is hesitant to promise a specific process at this juncture. EPA fully intends to honor a public comment process, but needs case-by-case flexibility on how this is accomplished.

In order for EPA to act on comments, commenters must be specific, detailed, and address issues over which EPA has authority. EPA cautions that comments lacking clear and relevant information may not be actionable. To ensure that EPA can read, understand, and, therefore, properly respond to public comments, EPA prefers that commenters cite, where possible, the paragraph(s) or section(s) in the proposed permit, fact sheet, or supporting documents to which the comment refers. Commenters should use a separate paragraph for each issue discussed. EPA notes that much of the information about a discharge and controls for the discharge are contained in the SWMP, and not the NOI. Members of the public may request a copy of the SWMP from the MS4 operator (see discussion below in Section 2.2.5, Requirement for Availability of SWMP). EPA will still receive and consider comments after the thirty (30) day comment period has ended during the NOI submittal process.

2.2.5 Requirement for Availability of SWMP

A copy of the SWMP must be kept on site at the facility, or be locally available for the use of EPA, or representatives of a State, or local agency (e.g., Department of Natural and Environmental Resources (DNER)), at the time of an onsite inspection/audit (Part 1.11.1). The SWMP must also be made available to any of these agencies, and the U.S. Fish and Wildlife Service and National Marine Fisheries Service, upon request. Since SWMPs are living documents that change over time, access to the current and full version of the SWMP is critical in assessing permit compliance.

SWMPs are considered publicly available information. As with the Small MS4 GP 2016, the Small MS4 GP 2022 proposes that MS4 operators be required to provide a current copy of the SWMP in a timely manner to any member of the public making such a request. The mechanism for providing the SWMP is at the discretion of the MS4 operator (e.g., web-based, hard copy). EPA has not included, in this general permit, a time limit for public requests within which MS4 operators must provide their current SWMPs, only that it must be timely. Here, however, EPA notes that no more than 2 weeks from receipt of the request should be entirely adequate unless there are extenuating circumstances. In the event an MS4 operator receives numerous requests, EPA would find it reasonable for the MS4 operator to make a copy available for review at a public- and easily-accessible location, such as a city hall office or library in the community where the MS4 is located. EPA encourages MS4 operators to make their SWMPs available electronically, both for ease and timeliness of access to the public, and for reduced costs to the MS4 operator. MS4 Operators may withhold from the public (but not from regulatory agencies) information legitimately justified to be Confidential Business Information.

2.2.6 Permit Compliance

EPA specifies that failure to meet any requirement of this permit is an enforceable permit violation. EPA has added emphasis and explanation about what constitutes a permit violation in several places in the general permit in order to avoid any ambiguity. However, provisions where this emphasis has not been included are also enforceable requirements.

2.2.7 Stormwater Management Program (SWMP)

The Stormwater Management Program is a written document required by the general permit. The SWMP is a mechanism used to document the practices the permittee is implementing to meet terms and conditions of the permit.

The draft permit requires that the SWMP be a written document and signed in accordance with Appendix B subparagraph 11. The SWMP must be available at the office or facility of the person identified on the NOI as the contact person for the SWMP. The SWMP must be immediately available to EPA, representatives from FWS or NMFS, and representatives from the state. The permittee must also make the SWMP available to any member of the public who makes a request in writing. EPA encourages the permittee to post the SWMP online or make it available at a public location such as the library or town/city hall.

The SWMP must contain the following:

- The name and title of people responsible for implementation of the SWMP. If a position is currently unfilled, list the title of the position, and modify with the name once the position is filled.
- A complete list of all the waters that receive a discharge of stormwater from the small MS4. For each water body listed, include its water quality classification, any impairment (see https://www.epa.gov/tmdl/puerto-rico-impaired-waters-list), along with the associated pollutant(s), and the number of outfalls.
- Documentation of permit eligibility regarding ESA. This must include information and any documents supporting the criteria used by the permittee to determine eligibility.
- Documentation of permit eligibility regarding NHPA. This must include information and any documents supporting the criteria used by the municipality to determine eligibility.
- A map of the separate storm sewer system. The map may be a hard copy map or one that is available on a geographic information system. If available on a GIS system, the web address shall be included in the SWMP.
- For each permit condition listed in Part 2.1 and Part 2.2 of the draft permit, the permittee must identify a person responsible for ensuring implementation of the condition. The permittee must identify specific BMPs to address the permit condition and the measurable goals associated with the BMP.
- For each control measure listed in Part 2.3 of the draft permit, the permittee must identify a person responsible for ensuring its implementation. The permittee must identify specific actions or BMPs to address each control measure. The permittee must also identify measurable goals associated with the control measure.
- Documentation of compliance with Part 3.0 – outfall monitoring requirements, electronic document and reporting
- Documentation of compliance with Part 4.0 – non-conventional MS4s - Commonwealth of Puerto Rico and Federal Facilities, when applicable
- Documentation of compliance with Part 5.0 – non-conventional MS4s – Commonwealth of Puerto Rico Department of Transportation and Public Works, when applicable

- Documentation of compliance with Part 6.0 – non-conventional MS4s – Commonwealth of Puerto Rico Department of Natural and Environmental Resources, when applicable
- An annual progress evaluation of the SWMP that contains the information required by Part 3.1 of the general permit

EPA believes that a written program provides a central accessible source for all information relating to the SWMP. The SWMP required by this draft permit continues to build on the requirements of the previous permit (the small MS4 GP 2016). While updating the SWMP required by this draft permit, the permittee must continue to enforce the SWMP that was required by the previous permit. This permit does not provide additional time for completing the requirements of the previous permit. Part 1.11.b. of the draft permit states that permittees covered by the previous permit must continue to implement their updated SWMP as required with the previous permit. And, if the existing SWMP has not been updated, the permittees will need to submit an updated SWMP within ninety (90) days from authorization of coverage under this permit. If this is not feasible, the permittee must document within 45 days why it is infeasible and implement such modifications. You will also develop a compliance workplan schedule of 180 days for modifying/updating the SWMP and submitting to EPA. The implementation of the modified/updated SWMP shall commence immediately after submission to EPA.

The draft permit requires that the permittee reduce the discharge of pollutants from the MS4 to the MEP, protect water quality, and satisfy the requirements of the CWA. The SWMP must document the actions the permittee has taken to demonstrate compliance with the control measures and other conditions of the permit. EPA believes that implementation of the permit conditions required by Part 2.3 of this draft permit will meet the MEP standard of the CWA. EPA believes that implementation of the permit conditions required by Part 2.1 and Part 2.2 of the draft permit will be protective of water quality.

The draft permit encourages the permittee to maintain adequate funding to implement the SWMP. Adequate funding ensures that monies will be available to the permittee for implementation of the permit conditions. Adequate funding is the availability of a consistent and reliable revenue source.

EPA does not require a specific funding mechanism or funding alternative. There are several options available to permittees. One funding mechanism is the use of a service fee or a stormwater utility. Usually, fees are based on the size of the property and the amount of impervious area associated with that property. Fees are usually one rate for residential homes and are varied for commercial and industrial facilities located on the property. Stormwater utilities exist in many parts of the country that can be used as a guide for collecting funds (https://www.epa.gov/sites/default/files/2015-11/documents/region3_factsheet_funding.pdf). A second funding mechanism is the general fund of the MS4. The revenue in the general fund usually comes from property taxes. This method of funding often means that levels are inconsistent from year to year, and may not increase as the cost to implement the SWMP increases. Finally, stormwater projects may be eligible for grants or low interest loans. The State Revolving Fund may be a source of funding for stormwater projects. Additional information on funding can be found at:

National Association of Flood and Stormwater Management Agencies, Guidance for Municipal Stormwater Funding (https://www.epa.gov/sites/production/files/2015-10/documents/guidance-manual-version-2x-2.pdf); and Enacting, Implementing, & Funding Stormwater Programs (https://www.nacwa.org/docs/default-source/default-document-library/2016-12-08stormwaterwhitepaper.pdf?sfvrsn=e2f6e961_0).

2.2.8 Water Quality Standards

This draft permit includes provisions to ensure that discharges do not cause or contribute to exceedances of water quality standards. The provisions in Part 2.1 constitute the water quality based effluent limitations of this permit. The purpose of this part is to establish the broad inclusion of water quality based effluent limitations for those discharges requiring additional controls in order to achieve water quality standards and other water quality-related objectives, consistent with 40 C.F.R. § 122.44(d). The water quality-based effluent limitations supplement the permit's non-numeric effluent limitations. The non-numeric effluent limitation requirements of this permit are expressed in the form of control measures and BMPs (see Part 2.3) and discussed later in this fact sheet.

If an MS4 discharges into waters that are not impaired, the draft permit employs a presumptive approach to ensure that the permittee's MS4 discharges do not cause or contribute to exceedances of water quality standards. For MS4 discharges into waters that are not impaired, EPA presumes that the conditions in the draft permit will meet applicable water quality standards when fully satisfied. EPA considers this approach valid since, despite ongoing discharges from the permittee's MS4 and other potential sources, these waters have not been categorized as impaired and failing to meet water quality standards. During the previous five years, permittees have implemented SWMPs to comply with the conditions of the Small MS4 GP 2016. Under the proposed permit, the permittees would continue implementation of an augmented SWMP to comply with several additional and stringent permit conditions. Therefore, EPA presumes that implementation of an augmented SWMP will, at least, maintain current pollution contribution levels from the MS4s discharging to unimpaired waters, thereby not causing or contributing to an exceedance of water quality standards.

The draft permit requires permittees to identify, and inform EPA and the state of any additional or modified BMPs to be implemented to address any discharge from its MS4 in the event the permittee becomes aware that the discharge causes or contributes to an exceedance of applicable water quality standards. The permittee should use any available information and add it to the SWMP, or modify BMPs in its SWMP to abate pollutants sufficiently to meet applicable water quality standards in the event that EPA's presumption proves to be incorrect.

Section 401(a)(1) of the CWA states that EPA may not issue a permit until a certification is granted or waived in accordance with that section by the state in which the discharge originates or will originate. The 401 certification affirms that the conditions of the general permit will be protective of the water quality standards and satisfy other appropriate requirements of state law.

The 401 certification may also include additional conditions more stringent than those in the draft permit, which the state finds necessary to meet the requirements of appropriate laws. Regulations governing state certification are set forth in 40 C.F.R. § 124.53 and § 124.55. Concurrent with the public notice of this general permit, EPA will request CWA Section 401 water quality certification. Section 401(a) of the CWA states in part that in any case where a state, interstate agency, or tribe has no authority to issue a water quality certification, such certification shall be issued by EPA.

2.2.9 Water Quality Impaired Waters

The draft permit requires permittees to comply with any additional water quality-related requirements for impaired waters. The additional requirements depend on whether the discharge is to an impaired water with or without an approved Total Maximum Daily Load (TMDL). See 33 U.S.C. § 1313(d).

Each state must develop a list of water bodies that are not meeting or expected not to meet the water quality standards applicable for each waterbody with current pollution control technologies alone. This list, knowns as the "303(d) List", refers to the section of the CWA that requires the listing of the waterbodies. The 303(d) list is part of an overall assessment of the water quality called the Integrated Report. The Integrated Report includes both the 303(d) list and the 305(b) assessment report. States must update these lists every two years.

EPA's regulations require that TMDLs be developed for waterbodies not meeting applicable standards (see 40 C.F.R. § 130.7 for the regulations associated with TMDLs). A TMDL specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards. The TMDL allocates pollutant loadings to the impaired water body from all point and nonpoint pollutant sources. Regulations at 40 C.F.R. § 130.2 define TMDL as "the sum of the individual waste load allocations (WLA) for point sources and load allocations (LAs) for nonpoint sources and natural background."

WLAs and LAs make up portions of a receiving waterbody's loading capacity. Once implemented, the TMDL is a strategy designed to meet the loading capacity of the waterbody and, ultimately, result in achievement of water quality standards.

The TMDL may establish a specific WLA for a specific source, or may establish an aggregate WLA that applies to numerous sources. Typically, stormwater sources are expressed as an aggregate in a WLA. The permittee must identify in its SWMP how it will achieve any applicable WLA established in the TMDL, which should include specific BMPs and measures to meet the WLA, if applicable. The permittee must provide evidence demonstrating that the BMPs are properly implemented and adequately maintained to prove that the requirements of the WLA are met. This permittee's demonstration of complying with the WLAs may be an iterative process.

Information on approved TMDLs and/or 303(d) lists can be found at: https://www.epa.gov/tmdl/puerto-rico-impaired-waters-list or http://www.epa.gov/mywaterway.

For a small MS4s that discharges into an impaired waterbody that has an EPA-approved TMDL at the time of the effective date of the permit, the draft permit includes, pursuant to 40 C.F.R. § 122.44(d)(vii)(B), effluent limits that are consistent with the assumptions and requirements of available waste load allocations included in the TMDL for the MS4 discharges (see draft permit Part 2.2.1). As of the date of issuance of this draft permit, bacteria TMDLs in the Commonwealth of Puerto Rico have been approved within various watersheds that receive discharges from MS4s in the area of coverage under this permit. In addition, copper and biochemical oxygen demand/ammonia TMDLs have been approved in the Río Grande de Loíza watershed.

2.2.10 Requirements for New Permittees

The draft permit provides different deadlines for municipalities not covered by the previous permit. New permittees have until the fourth year from the authorization date of the permit to complete the map required by the permit as part of the illicit discharge detection program. New permittees have until year four to begin the monitoring program required by Part 3.0 of the draft permit. EPA believes it is practical to have the map of the system complete prior to beginning outfall monitoring. Consistent with the timeframe in 40 C.F.R. § 122.34(a), EPA is providing the permit term for new permittees to develop and implement the ordinances or other regulatory mechanisms required by Parts 2.4.4 (Illicit Discharges); 2.4.5 (Construction Runoff Management) and 2.4.6 (Stormwater Management in New Development). New permittees must meet all other deadlines, such as those specified in the Water Quality Based Effluent Limitations outlined in the draft permit.

2.2.11 Emphasis on Legal Authority/Bylaw

Adequate legal authority is required to implement and enforce most parts of the SWMP. (See 40 C.F.R. § 122.26(d)(2)(i) and 40 C.F.R. §§ 122.34(b)(3)(i)(B), (b)(4)(i), and (b)(5)(i)). Without adequate legal authority, the MS4 would be unable to perform many vital SWMP functions, such as performing inspections and requiring installation of control measures. In addition, the permittee would not be able to penalize and/or attain remediation costs from violators.

A major difference between a conventional MS4 and a non-conventional MS4 (such as an MS4 under control of DOT, military base, or university) is often the scope of legal authority available to the MS4. Non-conventional MS4 permittees can neither pass “ordinances” nor have enforcement authority like a typical municipality, so legal authority may consist of policies, standards, or specific agreement language (e.g., Memorandum of Understanding). Non-conventional MS4 permittees also do not generally have the authority to impose a monetary penalty. Although these differences exist, just like conventional MS4s, non-conventional MS4s must have the legal authority to develop, implement, and enforce the program. Moreover, the scope of legal authority that may be exercised by MS4 operators that are municipalities may vary from each other. Therefore, the MS4 should tailor the legal authority or bylaws depending on the types of discharges covered and the scope of authority that may be exercised by the MS4. For example, non-conventional MS4 permittees often have authority over what their contracts require. Therefore, the non-conventional MS4 could require that contracts for construction and maintenance activities include specific stormwater requirements that ensure the non-conventional MS4’s requirements are met. In addition, cooperative agreements could be maintained with those permitted MS4s that do

possess the legal authorities to enforce stormwater measures within the permittee's MS4 boundary.

The discharge prohibitions listed in Part 2.3.3 of the permit are taken from the Phase II regulations and are the minimum requirements. Note that, Phase II MS4s and Phase I MS4 permittees are required to address the sources of non-stormwater discharges in Part 1.4 of the permit when they are identified as sources of pollutants in stormwater discharges. (See 40 C.F.R. § 122.34(b)(3)(C)). The permit writer may choose to apply additional or more stringent prohibitions.

2.2.12 Enforcement Measures and Tracking

The permit requires permittees to have an established, escalating enforcement policy that clearly describes the action to be taken for common violations. The policy must describe the procedures to ensure compliance with local ordinances and standards, including the sanctions and enforcement mechanisms that will be used to ensure compliance. (See 40 C.F.R. § 122.34(c)(1)). It is critical that the MS4 have the authority to initiate a range of enforcement actions to address the variability and severity of noncompliance. Enforcement responses to individual violations must consider criteria such as magnitude and duration of the violation, effect of the violation on the receiving water, compliance history of the operator, and good faith of the operator in compliance efforts. Particularly for construction sites, enforcement actions must be timely in order to be effective.

Typical enforcement mechanisms include verbal warnings, written NOVs, administrative fines and orders, stop work orders, and civil or criminal penalties. Some non-conventional MS4 permittees, such as DOTs and universities, may not have the authority to use the mechanisms described above. Therefore, the enforcement requirements in the SWMP should take the permittee's enforcement limitations and abilities into consideration, allow for alternative mechanisms such as related contract obligations or right-of-way permits, and/or require entities that cannot enforce to coordinate with those entities that can take action. For example, if a DOT discovers an illicit discharge to the right-of-way, a mechanism should be in place for the DOT to communicate with the adjacent municipality or State/federal Agency to eliminate the discharge in a timely manner.

The SWMP must include specific language as to when non-conventional MS4s can refer violations of NPDES permits to the permitting authority. Because of the often similar control measures required in MS4 construction programs and Puerto Rico Soil Erosion and Sediment Control Plan (Plan CEST, for its acronym in Spanish), or NPDES Construction General Permit (CGP) Stormwater Pollution Prevention Plan (SWPPP) requirements, the permittee will need to make an honest effort at achieving compliance with their local requirements before referring a violator to the PRDNER or NPDES permitting authority.

2.2.13 Non-Numeric Effluent Limitations

Non-Numeric Effluent Limitations (MEP)

In addition to water quality-based effluent limitations, NPDES permits are required to contain technology-based limitations. (40 C.F.R. § 122.44(a)(1)) When EPA has not promulgated effluent limitations for a category of discharges, or if an operator is discharging a pollutant not covered by

an effluent guideline, permit limitations may be based on the best professional judgment (BPJ) of the agency or permit writer. For this permit, effluent limits are based on BPJ. The BPJ limits in this permit are in the form of non-numeric control measures, commonly referred to as best management practices (BMPs). Non-numeric limits are employed under limited circumstances, as described in 40 C.F.R. § 122.44(k). EPA has interpreted the CWA to allow BMPs to take the place of numeric effluent limitations under certain circumstances. 40 C.F.R. § 122.44(k), provides that permits may include BMPs to control or abate the discharge of pollutants when: "(1)[a]uthorized under section 304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) [a]uthorized under section 402(p) of the CWA for the control of stormwater discharges; (3) [n]umeric effluent limitations are infeasible; or (4) [t]he practices are reasonable to achieve effluent limitations and standards or to carry out the purpose of the CWA." The permit regulates stormwater discharges with BMPs. Due to the variability associated with stormwater, EPA believes the use of BMPs is the most appropriate method to regulate discharges of stormwater from municipal systems in accordance with the above referenced regulation.

Control Measures

The draft permit requires MS4s to continue to control stormwater discharges from the municipal system in a manner designed to reduce pollutants to the maximum extent practicable, and to protect water quality and to satisfy the appropriate water quality requirements of the CWA. The Small MS4 GP 2016 required that "[a]ll elements of the storm water management program must be implemented by the expiration of the permit." This permit does not extend the compliance deadlines set forth in the Small MS4 GP 2016.

Further, permittees authorized under the Small MS4 GP 2016 must continue to implement their existing SWMPs while updating their SWMPs pursuant to this new permit.

In order to reduce pollutants to the maximum extent practicable and protect water quality, MS4s must implement a SWMP consisting of the control measures in Part 2.3 of the draft permit. In determining appropriate conditions for inclusion in the draft permit, EPA evaluated SWMPs and annual reports submitted for the previous permit. Practices which were implemented by a significant number of MS4s assisted EPA in making a determination that a particular BMP was "practicable".

Implementation of the SWMP involves the identification of BMPs and measurable goals for the BMP. The draft permit identifies the objective of each control measure. The permittee must implement the control measures and document actions in the SWMP demonstrating progress towards achievement of the objective of the control measure. The permittee must identify interim goals as steps towards achievement of the objective/long term goal.

Any goals identified as part of the SWMP must be measurable. A measurable goal for the program or control measure is a goal for which progress can be tracked or measured. A well-defined goal will have an outcome associated with it. Goals can be expressed as short term, mid-range, or long term. The permittee must evaluate the success of a goal. The permittee can evaluate the goals

using a variety of indicators including programmatic; social; physical; hydrological; or environmental. Recognizing that implementation of the SWMP is an ongoing and iterative process, subsequent goals will be more difficult to achieve than initial goals.

Measurable goals may be expressed either quantitatively or qualitatively. The method used to assess whether a goal has been met should be measurable, reliable, relevant, and an actual measure of the outcome. There are various methods to measure outcome. This includes confirmation or documentation that a task has been completed; tabulation, tracking an absolute number or value of something; surveying, determining the knowledge or awareness of a group; inspections, actual observations of an event; and monitoring, actual measurement of a pollutant in-stream or in an outfall.

Relying on Another Entity (Part 2.4.1)

In accordance with 40 C.F.R. § 122.35, the draft general permit allows an MS4 to rely on another entity for implementation of all or part of a permit condition or control measure. The permittee may rely on the other entity, if the other entity is implementing the control measure or permit condition. The other entity must agree to implement the measure or condition for the MS4. EPA requires the use of a legal agreement. This agreement must be included as part of the stormwater management program. If the other party fails to implement the measure or permit condition, the permittee is ultimately responsible for its implementation.

Public Education and Outreach (Part 2.4.2)

The MS4 must implement a public education program to distribute educational materials to the community or conduct other outreach activities about the impacts of stormwater discharges on waterbodies and steps the public can take to reduce pollutants in stormwater runoff. The education program must be specific to the MS4 and include a focus on the pollutants of concern associated with impaired waters affected by discharges from the small MS4. The overall long-term goal of an effective education program is to change behavior and increase the knowledge of the community.

An education program must have a defined and targeted message for each of the different audiences and must include a measure to evaluate effectiveness of the educational messages. Based on review of annual reports from the previous permit, EPA found that some of the education programs developed by MS4s did not incorporate these expectations. In order to achieve the objective of this measure, the draft permit includes detailed expectations for educating the public.

The draft permit requires the permittee to provide educational materials to residents, commercial entities, institutional facilities, businesses, industrial facilities, and construction and development companies. The draft permit includes topics for consideration for all audiences. The permittee may use those topics listed or may focus on other topics specific to the small MS4. In addition, to the distribution of materials in a language other than Spanish, as appropriate. Permittees can form partnerships with other organizations to assist in the implementation of its education and

outreach programs. These partnerships may include other MS4s in a watershed, environmental groups, watershed associations, or other civic organizations.

During previous permit terms, an educational group developed comprehensive public education program materials for use by regulated small MS4s. For example, the "Servicios de Extensión Agrícola" of the University of Puerto Rico developed materials in Spanish related to stormwater runoffs. These materials provide an educational background and services as a tool for small MS4s to distribute in their communities. The program is available to any community. Additional information on these materials are available at: http://agricultura.uprm.edu/escorrentia/.

Public Involvement and Participation (Part 2.4.3)

This control measure is closely related to the public education and outreach control measure. EPA supports the idea that if the public is given an opportunity to understand and participate in a stormwater protection program, the public generally will become supportive of the program.

The objective of this measure is to provide and engage the public with opportunities to participate in the review and implementation of the SWMP. The draft permit requires that public participation opportunities, at a minimum, comply with the public notice requirements of the state. However, permittees are encouraged to provide more interactive opportunities for public participation Examples include volunteer water quality monitoring, community clean-up days, hazardous waste collection days, and adopt a drain/adopt a stream programs.

The draft permit requires that the permittee annually provide an opportunity for the public to participate in the SWMP. Participation efforts should attempt to engage all groups serviced by the MS4. This effort may include creative public information messages such as announcements in neighborhood newsletters, social medias, use of television spots on the local cable channel, or announcements or displays at civic meetings. One goal of public participation is to involve a diverse cross-section of people and businesses in the community to assist in development of a program that meets the needs of the permittee.

Permittees are encouraged to work together with other entities that have an impact on stormwater (for example, schools, homeowner associations, DOTs, other MS4 permittees). Permittees are also encouraged to use existing advisory groups or processes in order to implement these public involvement requirements.

The permittee is encouraged to use existing public educational materials in its program. Examples of public educational materials for stormwater are available at EPA's Nonpoint Source Outreach Toolbox (www.epa.gov/nps/toolbox). The permittee is also encouraged to leverage resources with other agencies and municipalities with similar public education goals.

Finally, the underlying principle of any public education and outreach effort is to change behaviors. The permittee must develop a process to assess how well its public education and outreach programs is changing public awareness and behaviors and to determine what changes are necessary to make its public education program more effective. This assessment of public

education programs is typically conducted via phone surveys, but other assessment methods that quantify results can be used like social media. The permittee is encouraged to use a variety of assessment methods to evaluate the effectiveness of different public education activities. The use of evaluation assessments allows the permittee to make changes as appropriate before the next permit application is due, EPA's Getting In Step: A Guide to Effective Outreach in Your Watershed (http://www.epa.gov/nps/toolbox) can provide useful information on setting up and conducting the evaluations.

Illicit discharge detection and elimination (Part 2.4.4)

The Small MS4 GP 2016 required that the "permittee must develop, implement, and enforce a program to detect and eliminate illicit discharges." The Small MS4 GP 2016 also provides that "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 date of authorization under this permit."

While this draft permit continues to build upon the requirements set forth in the Small MS4 GP 2016, it does not extend the deadlines applicable to the illicit discharge detection and elimination minimum measure imposed by the Small MS4 GP 2016. This measure requires the MS4 to detect and eliminate illicit discharges from its municipal separate storm sewer system. The regulations at 40 C.F.R. § 122.26(b)(2) define an illicit discharge as "… any discharge to a municipal separate storm sewer system that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities."

Some illicit discharges enter the storm system directly such as incorrectly connected wastewater discharge lines, while others may enter indirectly, such as through infiltration from cracked sanitary lines or spills collected by drain outlets. Both types of discharges can contribute pollutants to the system that in turn affect water quality. An illicit discharge, typically, is any discharge to a municipal separate storm sewer system that is not stormwater. The draft permit contains a list of sources of non-stormwater that permittees must evaluate to determine whether they are significant contributors of pollutants. If the permittee determines that the source is a significant contributor of pollutants, the permittee must implement measures to control or prohibit that source.

The draft permit describes required components of an illicit discharge detection and elimination program. The draft permit includes the elements that are listed as guidance in 40 C.F.R. § 122.34(b)(3), and information and procedures included in the Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments written by the Center for Watershed Protection and Dr. Robert Pitt. (2004 IDDE Manual, available at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater-documents).

The previous permit required each MS4 to develop and implement an IDDE program. Since the issuance of the Small MS4 GP 2016, EPA, the state, and MS4s have gained an improved and more

comprehensive understanding of the nature of illicit discharge connections; the extent of the problem; effective technologies and procedures to detect and verify illicit connections; and the best practices to reduce discharges of contaminated stormwater from illicit connections. Collaborative programs can demonstrate that IDDE can be a key contributor to improved water quality. In consideration of this collective enhancement of knowledge and experience, the draft permit continues to require specific BMPs as those in the Small MS4 GP 2016.

For example, the draft permit continues to require MS4s to have a written IDDE protocol that includes specific requirements, procedures, and approaches. Examples of these requirements are a detailed map, a written prioritization of areas with a potential of illicit discharges, wet and dry weather outfall monitoring, record keeping, and thorough and complete storm drain network investigations that systematically and progressively evaluate manholes in the storm system to narrow the location of a suspected illicit connection or discharge to an isolated pipe segment. These requirements are described in the following paragraphs.

The previous general permit required the MS4 to develop a map that, at a minimum, depicted the locations of the stormwater outfalls, and names and locations of all waters that receive discharges from those outfalls. This map must have been completed by July 1, 2020. The draft permit continues to require that additional detail be added to the existing map. In addition to outfalls and receiving waters, the map must now include the locations of catch basins, manholes, pipes, treatment facilities associated with the stormwater system, and water resource areas, such as drinking water sources. The permittee may choose to include additional information that is helpful, but not required. This additional information includes data regarding land use (zoning information) and the amount of impervious area on a parcel or a catchment. The draft permit does not require a specific tool for the mapping, however, a map generated using a Geography Information System (GIS) is EPA's preferred method. The draft permit defines an outfall as a point source (as define in 40 C.F.R. § 122.2) at the location where the municipal separate storm sewer system 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 U.S., and are used to convey waters of the U.S (40 C.F.R. § 122.26(b)(9)).

The draft permit provides three years for the permittee of the MS4 to complete the additional mapping elements required by the draft permit. The draft permit does not provide any additional time for the completion of the map of outfalls and receiving waters, which was required in the Small MS4 GP 2016. The initial system map must have been complete by July 1, 2019. The three (3) years timeframe for mapping in the draft permit is based on the expectation that the permittee has completed the mapping required by the previous permit.

The MS4 must have adequate legal authority to implement the following activities as part of the IDDE program: prohibit illicit discharges; investigate suspected discharges; eliminate illicit discharges, and enforce the IDDE program. The previous permit required development of an ordinance or other regulatory mechanism to address these components. The ordinance must have been in place and effective by November 6, 2011, as required under the Small MS4 GP 2006. The

ordinance or regulatory authority must be referenced in the IDDE program, which is a part of the overall SWMP.

Under 40 C.F.R. § 122.34(b)(3) it requires the permittee to "develop and implement a plan to detect and address non-stormwater discharges, including illegal dumping, into the system." The Small MS4 GP 2016 set forth the required elements of the plan. As required by the Small MS4 GP 2016, this plan must have been developed and implemented by the expiration date of the general permit. The draft permit does not extend this deadline. The draft permit continues to build on the requirements of the Small MS4 GP 2016 by continuing the three required components of an illicit discharge detection and elimination program. The first component is an assessment and ranking of the catchments within the MS4 for their potential to have illicit discharges. The second component is a written protocol that clearly identifies responsibilities regarding eliminating illicit connections. The final component is a written systematic protocol for locating and removing illicit connections. Each of these components are discussed in the following paragraphs.

The permittee must assess the illicit discharge potential for all areas that discharge to the MS4. The assessment consists of three steps: (1) delineation of catchments or drainage units; (2) evaluation of the data that exists for those delineated catchments or units; and (3) ranking each catchment for its potential to have illicit discharges as "low", "excluded", "problem" or "high" based on EPA and/or permittee defined screening factors. The EPA defined screening factors, that the permittee must consider, are listed in the draft permit. The permittee must consider all factors, but not all factors are applicable to all permittees, and permittees may add other factors that are relevant to the municipality. The permittee must complete the assessment and the ranking by the end of the first year of the permit. The permittee must document the results of the assessment and ranking and maintain them as part of the SWMP. The permittee must also report this information as part of the annual report. (See Part II, Section 2.2.14 of this fact sheet.)

The ranking is intended to aid the permittee in the identification of areas with the greatest potential for illicit connections. The draft permit requires the permittee to continue the implementation of the systematic illicit detection protocol in areas identified as "high" or with the highest ranking. The permittee must continue to implement the protocol in all MS4 areas until all areas have been evaluated. The permittee must justify in the SWMP any decisions not to focus efforts in areas identified as "high" by the ranking.

The permittee must have in place a written procedure or protocol that clearly identifies methodologies and responsibilities with regard to eliminating illicit discharges. The protocol/procedure must identify who is responsible to pay for removal of an illicit connection/discharge. The permittee may incur the costs, or the owner of the illicit connection may be responsible or a combination of the two depending on circumstances. EPA does not require a specific methodology, only that one exists and that the staff responsible for locating and removing illicit connections is familiar with it. The protocol/procedure must also define appropriate methods for removal of the illicit discharge or connection. Finally, there must be procedures for confirmation of removal of illicit discharges or connections. This

protocol/procedure must be completed by the end of year two of the permit from the authorization date of coverage granted to the permittee.

The permittee must develop a written procedure that details a systematic approach for locating and removing illicit discharges. This written procedure must also be completed by the end of year two of the permit from the authorization date of coverage granted to the permittee. The systematic procedure includes three parts. The first part is the outfall inventory; the second part is tracking a discharge to a source; and finally, removal of the source. Each of these parts is discussed in the paragraphs below.

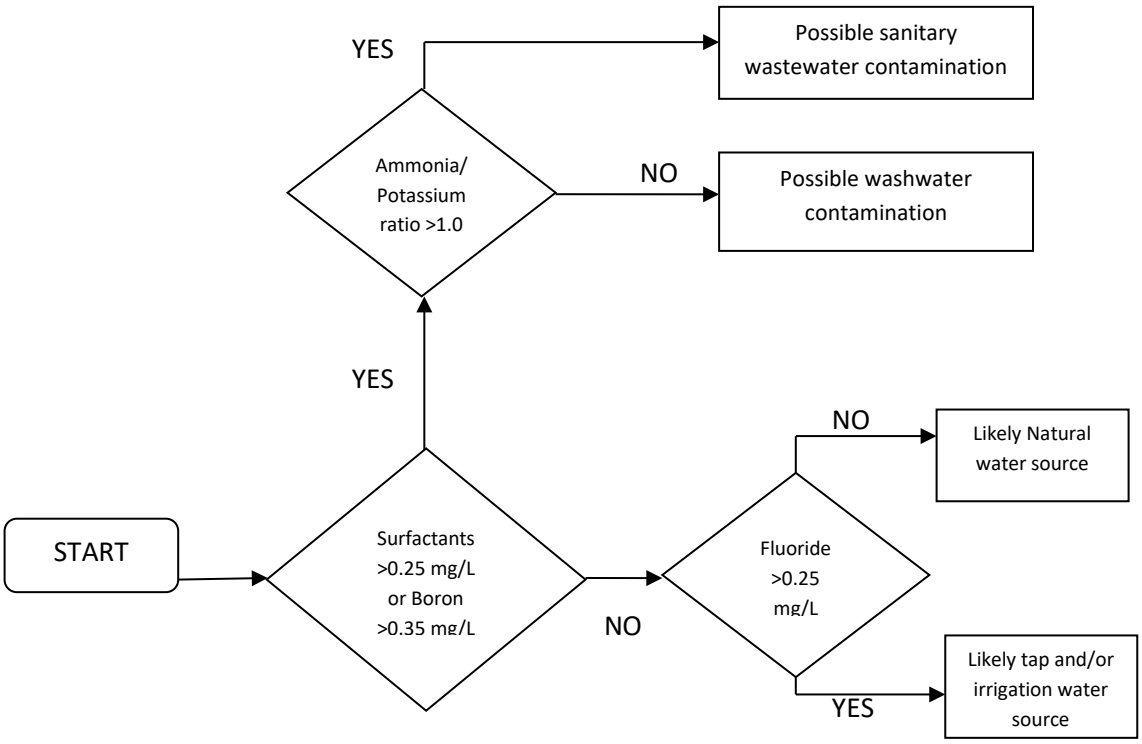
The outfall inventory includes walking all stream miles within the MS4 boundary that receive a discharge from the MS4 and locating all the outfalls. The permittee must complete the inventory during dry weather. The permittee should use the definition of outfall found at 40 C.F.R. § 122.26(b)(9) for purposes of identifying outfalls. When an outfall is located, the permittee must observe the outfall and record specific information. The information that must be recorded includes: the dimensions, shape, material, and spatial location; and the physical condition of the outfall. Each outfall must have a unique identifier. In addition to the physical observations, the permittee must also record any sensory observations. This includes color, odor, floatables, oil sheens or evidence of flow. If flow is observed at an outfall, a sample must be taken, and the source of the dry weather flow determined. The flow must be analyzed for conductivity, turbidity, pH, chlorine, temperature, surfactants (Methylene Blue Active Substances (MBAS)), potassium, ammonia, and E. Coli or Enterococcus (depending on whether the discharge is to a fresh water or a marine water). The 2004 IDDE Manual, Subchapter 12.4, provides guidance on four techniques to interpret indicator parameter data. Figure 1 flow chart method is one technique that can be used by the permittee as a screening tool to help determine the potential source of the discharge.

If the source is not readily determined, a more intensive investigation must be undertaken.

If an outfall has evidence of a flow, but there is not an actual flow during the inventory or dry weather monitoring, there may be an intermittent discharge. Intermittent discharges are difficult to track because they can occur at any time. There are monitoring techniques a municipality can use to try to address a suspected intermittent discharge. These techniques include: (1) odd hour monitoring; (2) optical brightener monitoring (OBM) traps; (3) caulk dams; (4) pool sampling; and (5) toxicity monitoring.

Odd hour monitoring includes mornings and afternoons, weekday evenings and weekends. OBM traps have an absorbent unbleached cotton pad or fabric swatch, and an anchoring devise. The traps are placed in an outfall suspected of an intermittent discharge and then collected after several days of dry weather. When an OMB is placed under fluorescent light, it will indicate exposure to detergents, such as wash waters. The caulk dam is used to create a small dam inside the pipe and then collect a sample of any water that is collected. Pool sampling is when a sample is

Figure 1: Flow Chart to Identify Illicit Discharges in Residential Watersheds (2004 IDDE Manual: Dr. Robert Pitt)



collected right below the area where an outfall discharges and a sample is also collected upstream in a location not affected by the outfall. The samples are analyzed and compared. Finally, toxicity monitoring involves monitoring for toxicity in the pool below the outfall of a suspected intermittent discharge. Due to the complexities associated with toxicity testing, this method is not recommended unless the municipality has prior experience or an indication of the suspected source.

Tracking a discharge to its source involves a more rigorous investigation. This is accomplished through a storm drain network investigation. A storm drain network investigation involves systematically and progressively opening and inspecting junction manholes in the system to narrow the location of a discharge to an isolated pipe segment between two manholes. The permittee shall inspect each manhole for visual evidence of illicit connections or discharges (e.g., excrement, toilet paper or sanitary products). When flow is observed in the manhole, the permittee shall sample for ammonia and surfactants. Ammonia is a good indicator of sewage. The concentration of ammonia is higher in sewage than in ground water or tap water. Surfactants are the active ingredient in most commercial detergents. Surfactants are typically measured by detecting the presence of MBAS. These substances are a synthetic replacement for soap. The presence of surfactants is an indicator of sewage and wash waters. There are other indicator parameters the permittee could use, such as fluoride. Water treatment plants typically add fluoride to drinking water supplies and its presence is an indicator of tap water. Potassium is another indicator that has relatively high concentrations in sewage. When the concentration of

potassium is evaluated in combination with the concentration of ammonia, the ratio of the two can help distinguish wash waters from sanitary wastes.

In addition to determining what indicators to use to determine if a manhole is “clean” or “dirty”, the permittee must also determine where in a particular catchment to begin the investigation of manholes for illicit connections. The permittee must begin investigations in catchments identified as “high” or catchments with known illicit discharges. The permittee must decide whether the systematic investigations will be from the outfall working progressively up into the system (bottom up) or from the upper parts of the catchment working progressively down (top down). Either method or a combination that includes systematic inspection of junction manholes is acceptable. The permittee must document the chosen procedure in the protocol required by Part 2.4.4.8(d). EPA believes that in systems that are complex and service large populations, the top down approach is the most effective for locating illicit discharges.

The permittee must have begun its systematic investigation of catchments no later than 27 months from the effective date of the Small MS4 GP 2016. If the permittee has not completed the protocol for systematic identification prior to year two of the permit from the authorization date of coverage granted to the permittee, the permittee must submit a compliance workplan as stated under Part 1.11(b). This will then require the permittee to begin their systematic investigation no later than three months from the completion of the protocol. The permittee must address any illicit connections found prior to completion of the protocol in accordance with Part 2.4.4.4 of the draft permit. The permittee shall continue the investigations until the permittee has evaluated all areas of the MS4.

In addition to the use of indicators to help identify the source of an illicit connection or discharge, the permittee may use dye testing, video testing, smoke testing or other appropriate methods to aid in locating illicit connections or discharges. The draft permit requires the permittee to either remove or eliminate the illicit discharge, or take appropriate enforcement action within six months of detection. The permittee must also track the progress of the IDDE program implementation. The permittee must identify indicators it will use for tracking the effectiveness of the program. Appropriate tracking indicators are those that demonstrate elimination of a pollutant source and/or water quality improvements. For example, if a permittee’s MS4 discharges bacteria resulting in a beach closure, an appropriate indicator for tracking the permittee’s progress of decreasing the presence of bacteria would be a decrease in the frequency of beach closures.

In addition to detecting and removing illicit discharges, the permittee must also develop and implement mechanisms and procedures for preventing illicit discharges. This includes training to inform public employees, businesses, and the public of the hazards associated with illegal discharges. The requirement to prevent illicit discharges can be incorporated into the public education and participation control measures. Examples of mechanisms to prevent illicit discharges include identification of opportunities for pollution prevention or source control; distribution of information concerning car washing or swimming pool draining; routine maintenance activities; and inspections of facilities.

Construction site stormwater runoff control (Part 2.4.5)

Under 40 C.F.R. § 122.34(b)(4) it requires that the permittee must develop, implement and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in land disturbance of greater than or equal to one acre [and] less than one acre if part of a larger common plan. While this draft permit continues to build upon the requirements set forth by the Small MS4 GP 2016, it does not extend the deadlines applicable to the construction site stormwater runoff control minimum measure imposed by the Small MS4 GP 2016.

MS4s are required to continue to review and enforce a program to reduce pollutants in stormwater runoff from construction activities that result in a land disturbance of greater than or equal to one acre and that discharge to the MS4. The overall objective of an effective construction runoff management program is to have a program that minimizes or eliminates erosion and maintains sediment on site.

The construction program required by the draft permit is different from EPA's program that is implemented through the Construction General Permit (CGP), although there is some overlap. EPA's CGP applies to construction projects that have one or more acres of disturbed land and discharge directly to a waterbody or indirectly through an MS4. The MS4 program must address the discharges from construction projects that discharge directly to its system. Discharges from a construction project to a combined sewer system and construction projects that do not discharge at all, are not subject to the CGP (see 40 C.F.R. § 122.26(a)(7)). A permittee is not required to regulate any construction project that receives a waiver from EPA in accordance with 40 C.F.R. § 122.26(b)(15)(i).

The permittee must have an ordinance or other regulatory mechanism requiring proper sediment and erosion control. The requirement to develop the ordinance was originally part of the first general permit cycle (i.e., Small MS4 GP 2006). The ordinance must have been in place and effective by November 6, 2011. In addition to addressing sediment and erosion control, the ordinance must include controls for other wastes on constructions sites such as demolition debris, litter, and sanitary wastes. EPA encourages permittees to include design standards in local regulations for sediment and erosion control BMPs. The draft permit includes a list of controls that could be included as part of the local program.

The construction program must have procedures for preconstruction review and approval of site plans. Permittees should make every effort to ensure that qualified personnel review plans. The procedures must ensure that plan reviews include consideration of water quality impacts. Site plan review should include consideration of comments from the public. These review procedures should be written.

The construction program must have procedures for site inspections and enforcement. Qualified personnel should perform inspections. A "qualified person" is a person knowledgeable in the principles and practices of erosion and sediment controls and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and

the skills to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit. Inspections should occur during construction as well as after construction to ensure that BMPs are installed and operating as described in approved plans.

The permittee shall have clearly defined procedures regarding who is responsible for inspections and what aspects of the construction site are to be inspected. The permittee must have authority to impose sanctions if construction projects are found not to be in compliance with the local ordinance. Sanctions can include monetary penalties or stop work orders.

MS4s should review existing procedures in the community that apply to these activities. Often construction plans are seen by the planning board that may not have the technical expertise of engineering staff to evaluate them. An MS4 should look at the various components of the local government and whenever possible, optimize coordination between municipal offices, state offices, and other MS4s, as appropriate to ensure adequate review of plans and other documents associated with a construction project.

Stormwater Management in New Development and Redevelopment (Part 2.4.6)

Under 40 C.F.R. § 122.34(b)(5) it requires that the permittee must develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre and discharge to the municipal system [and] less than one acre if the project is part of a larger common plan of development which disturbs greater than one acre and set forth required elements of the post construction program. This draft permit continues to build upon the requirements set forth in the Small MS4 GP 2016, but does not extend the deadlines applicable to the post construction stormwater management in new development and redevelopment minimum measures imposed by the Small MS4 GP 2016.

EPA encourages practices that manage stormwater on site and maintain or improve site hydrology. Practices which support this effort are discussed in the following paragraphs.

This measure applies to areas of new development and redevelopment of one acre or more in size. The long-term objective of this measure is to have the hydrology associated with new development closely mirror the predevelopment hydrology, and improve the hydrology of the redeveloped sites. Studies have indicated that prior planning and design for the minimization of pollutants in post construction stormwater discharges is the most cost-effective approach to stormwater quality management. Post construction stormwater runoff may cause two types of impacts. One is an increase in the type and the quantity of pollutants. The alteration of the land by development can increase the discharge of pollutants such as oil and grease, heavy metals, and nutrients. Another impact occurs with an increase in the quantity of stormwater that is delivered to waterbodies during storm events. Increases in impervious area decrease the amount of precipitation that naturally infiltrates into the ground. The lack of natural infiltration increases the volume of stormwater runoff into water bodies. The increased flows and increase in sediment discharges can cause stream bank scouring, impacts to aquatic habitat, and flooding.

This control measure requires the MS4 to continue to review and enforce a program to address post-construction stormwater runoff from areas of new development and redevelopment that disturb one or more acres. The MS4 must implement an ordinance or other regulatory mechanism to manage post-construction stormwater runoff. This ordinance was originally part of the first general permit cycle (i.e., Small MS4 GP 2006) and must have been effective by November 6, 2011.

The draft permit also continues to require the permittee to assess current street and parking lot designs that affect the creation of impervious cover. The objective of this assessment is to determine if changes in design standards can be made to accommodate Low Impact Development (LID) options. Some of the street and parking lot design standards and requirements a municipality would want to consider in this assessment include flexibility in road design standards (the width of the road and placement of sidewalks), and flexibility in design of parking lots (shared and multilevel lots, and flexibility in the number of parking spaces). If the assessment indicates that changes in design standards or requirements are practicable, the municipality must develop recommendations and a schedule for implementing the changes.

Management of stormwater on-site can be accomplished in many ways. LID focuses on using practices that imitate the natural water cycle. Rather than directing stormwater to a pipe or conveyance, the stormwater is managed onsite. LID practices can work at the site level as well as the watershed level. Some of the LID practices that the municipality should consider are green roofs; infiltration practices, such as porous pavement and rain gardens; and water harvesting devices, such as rain barrels and cisterns.

Another method a permittee can use to management stormwater is to adopt a Master Plan based on smart growth principles that directs development towards suitable areas and away from important natural resources. The draft permit does not require the permittee to adopt a Master Plan, but EPA encourages MS4s to consider this method as it is a powerful tool that can be used to help a permittee more effectively manage resources. However, the plan alone may not be enough to be the sole mechanism for addressing post construction stormwater runoff. Implementation of a Master Plan includes the adoption of zoning, subdivision ordinances, or other regulations that implement the smart growth principles in the Master Plan. Through these principles and regulations permittees can encourage compact development and redevelopment, and discourage the development of more pristine areas. This will minimize the amount of new impervious surfaces and the generation of stormwater runoff to protect water quality.

The draft permit contains requirements to reduce stormwater impacts on water quality. Impacts are due to a variety of factors including volume, frequency and quality. Stormwater can contain any pollutant that is on the ground and can be transported with the stormwater as it moves across an area. These pollutants may include bacteria, nutrients, metals and sediments. Large volumes of stormwater can cause erosion along stream banks and result in altered habitats. Studies from the Center for Watershed Protection (CWP) have shown that impairments from stormwater runoff can be observed in watersheds with as little as 10 percent impervious cover. Impervious cover includes roads, sidewalks, driveways, roof tops, and other surfaces that do not allow for infiltration. The requirements in the draft permit focus on critical waters and small streams. The permit requires

the permittee to reduce the frequency and volume of stormwater to these critical waters. The draft permit encourages the management of the first one inch of rainfall from a 24-hour storm.

The draft permit also requires the permittee to estimate the amount of impervious cover within sub-watersheds of the municipality. EPA will provide the permittee with an initial estimate. The permittee shall inventory properties and infrastructure within its jurisdiction that have the potential to be retrofitted with BMPs designed to reduce the frequency and intensity of stormwater discharges. Although not a pollutant, impervious cover can be used as a surrogate pollutant when dealing with stormwater discharges. In the simplest terms, reductions in the amount of impervious cover within a watershed should result in reductions of stormwater quantities. Reductions in stormwater quantities should result in improvements to water quality. The permittee is required to track the number of acres of impervious cover that have been added or removed annually.

You may learn more about green infrastructure elements that can be woven into a community, from small-scale elements integrated into sites to larger scale elements spanning entire watersheds at EPA's Green Infrastructure website: https://www.epa.gov/green-infrastructure.

Pollution Prevention & Good Housekeeping for Municipal Operations (Part 2.4.7)

Under 40 C.F.R. § 122.34(b)(6) it requires that the permittee must develop and implement a program with a goal of preventing and/or reducing pollutant runoff from municipal operations, and set forth required elements of the pollution prevention and good housekeeping program. While this draft permit continues to build upon the requirements set for by the Small MS4 GP 2016, it does not extend the deadlines applicable to this minimum measure imposed by the Small MS4 GP 2016.

This measure continues to require small MS4s to develop and implement an operation and maintenance program that includes a training component. The goal of this measure is preventing or reducing pollutant runoff from all municipal operations. The draft permit includes similar detailed requirements than the previous permit for the implementation of this control measure. Permittees are required to develop an operations and maintenance plan for the following permittee-owned activities or facilities: parks and open spaces; buildings and facilities; vehicles and equipment maintenance; and roadways and storm systems.

The permittee was required to develop and implement operation and maintenance plans by the end of the first year of the Small MS4 GP 2016. For management of open space and parks, the draft permit continues to require an evaluation of the use, storage, and disposal of pesticides and fertilizer practices to ensure that they are protective of water quality. The permittee must also ensure that lawn maintenance and landscaping activities are protective. During the evaluation of buildings and facilities, the permittee must consider all buildings it owns. This includes police and fire stations, schools, and other offices. The permittee should evaluate the use and storage of petroleum products, management of dumpsters, and other wastes. As stated in the objective of this measure, the permittee must implement good housekeeping and pollution prevention

measures. In areas where permittee-owned vehicles are stored, the permittee must develop procedures to ensure vehicles that are leaking or require maintenance are stored indoors or in a contained area. Municipal fueling areas must be covered unless impracticable. Wash waters from permittee-owned vehicles must not be discharged to the MS4.

The draft permit contains specific frequencies for street sweeping and catch basin cleanings. The municipality must track the amount of material removed from each basin and increase the frequency of cleaning if evidence suggests that material is accumulating more quickly than in other basins. Basins in priority areas may also require more frequent cleaning.

The permittee must establish and implement maintenance schedules and inspection frequencies for all permittee-owned BMPs.

In addition to the operation and maintenance plans required for permittee-owned operations, the permittee must have a Stormwater Pollution Prevention Plan (SWPPP) for municipal maintenance garages, public works facilities, transfer stations, or other waste management facilities. If a facility that is already covered by EPA's Multi-Sector General Permit (MSGP), the SWPPP required by that permit will be sufficient. The SWPPP required by the MSGP may be referenced in the MS4 SWMP.

The permittee' SWPPP must consists of the following elements: (1) a pollution prevention team – this team is responsible for the development, implementation and revision of the SWPPP; (2) a description of the facility and identification of potential pollutant sources; (3) identification of any stormwater controls at the facility; and (4) implementation of specific management practices at the facility. The conditions contained in this section are based on the conditions contained in the Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities (MSGP). They consist of pollution prevention activities such as preventing exposure, good housekeeping practices, and preventative maintenance. The draft permit continues to require procedures for spill prevention and response and management of runoff.

2.2.14 Program Evaluation, Record Keeping and Reporting (Section 3.0)

The permittee must periodically continue to evaluate its SWMP for the following: compliance with the terms of the permit, the appropriateness of the identified BMPs and progress towards achieving the objective of the control measure and the permittee's measurable goals. The permittee may need to change its selected BMPs identified in the SWMP based on this evaluation process to ensure compliance with the terms of the permit, including water quality-based requirements.

Recordkeeping (Part 3.2)

The permittee must keep all records required by this permit for a period of five (5) years after the expiration of the permit. The permittee must submit records when requested by EPA.

Reporting (Part 3.4)

The permittee must submit an annual report. The reporting year period is July 1st through June 30th and annual reports are due thirty (30) days after the end of the yearly period (i.e., July 30th). The due date for the annual report in the draft permit continue to be the same due date as the

Small MS4 GP 2016. The report must include a self-assessment regarding compliance with the terms of the permit, the appropriateness of selected BMPs, and the progress towards achieving the permittee identified measurable goals. The report must also contain a summary of any information that has been collected and analyzed. This includes all types of data. The permittee must also indicate what activities are planned for the next reporting cycle and discuss any changes to either BMPs or measurable goals. The report must indicate if any control measure or measurable goal is the responsibility of another entity.

The draft permit continues the detailed reporting requirements as in the previous permit. Reports must contain sufficient information to enable EPA to assess the permittee's compliance with the permit.

Annual progress reports are due annually on July 30th and will be required to be submitted via EPA's electronic NPDES eReporting tool (NeT), unless the permit states otherwise or unless the permittee have been granted a waiver per Part 1.7.2. of the general permit. Waivers are one time only per event actions. If the permittee is granted waiver for the current year, this waiver will not apply for the next year requirement and the permittee will be required to seek a new waiver.

2.2.15 Standard Permit Conditions (Appendix B)

40 C.F.R. § 122.41 and § 122.42 establish requirements that must be in all NPDES permits. Appendix B of the draft general permit includes these requirements.

2.2.16 401 Water Quality Certification (Section 7.1)

Section 401 of the CWA provides that any federal license or permit, including NPDES permits, to conduct any activity that may result in any discharge into navigable waters shall not be granted until the State in which the discharge originates certifies that the discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA. The Section 401 certification process will be simultaneously performed during the comment period. Specific 401 certification requirements are contained in Part 7.0 of the draft permit.

3.0 Information and Resources

EPA has developed several tools to assist MS4s in the development of their stormwater management programs. The following is a non-inclusive list of some of the available resources:

1. MS4 Program Evaluation Guidance and the Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments is available from EPA's publications website: https://www.epa.gov/sites/production/files/2015-11/documents/idde_manualwithappendices_0.pdf.
2. Menu of BMPs available at: https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater-documents.

3. Measurable Goals Guidance available at: https://www.epa.gov/sites/production/files/2015-11/documents/measurablegoals_0.pdf.

4. EPA Stormwater Home page: https://www.epa.gov/npdes/npdes-stormwater-program contains links to stormwater publications including industrial, construction, transportation, MS4 and other guidance manual; model ordinances; and educational materials including EPA stormwater webcast series.

5. Source Water Practices Bulletin: https://www.epa.gov/sourcewaterprotection/source-water-protection-practices.

6. University of Puerto Rico: Mayagüez Campus – Servicios de Extensión Agrícolas website on stormwater runoff: http://agricultura.uprm.edu/escorrentia/index.html.

7. Financing Stormwater Management: https://www.epa.gov/wifia.

8. Center for Watershed Protection: http://www.cwp.org.

9. Low Impact Development: http://www.lowimpactdevelopment.org.

10. TMDL information is available at: https://www.epa.gov/tmdl/puerto-rico-impaired-waters-list.

11. Water Quality Standards: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-puerto-rico.

12. Stormwater Center: www.stormwatercenter.net.

13. Smart Growth: http://www.epa.gov/smartgrowth/ and www.smartgrowth.org.

14. Green Infrastructure: https://www.epa.gov/green-infrastructure.

4.0 Other Legal Requirements

A. Environmental Impact Statement Requirements
The draft general permit does not authorize discharges from any new sources as defined under 40 C.F.R. § 122.2. Therefore, the National Environmental Policy Act, 33 U.S.C. Sections 4321 *et seq*., does not apply to the issuance of these general NPDES permits.

B. Section 404 Dredge and Fill Operations
This draft permit does not constitute authorization under 33 U.S.C. Section 1344 (Section 404 of the Clean Water Act) of any discharge of dredged or fill material into waters of the United States.

C. Executive Order 12866
EPA has determined that this draft general permit is not a "significant regulatory action" under the terms of Executive Order (EO) 12866 (58 Fed. Reg. 51735, October 4, 1993), and is, therefore, not subject to review under the EO.

D. Paperwork Reduction Act
The information collection requirements of this draft permit were previously approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act, 44 U.S.C. §§ 3501 *et seq*. and assigned OMB control number 20400086 (NPDES permit application) and 20400004 (Monitoring Reports).

E. Regulatory Flexibility Act
EPA's current guidance, entitled the Federal Guidance for EPA Rule writers: Regulatory Flexibility Act [RFA], as amended by the Small Business Regulatory Enforcement and Fairness Act, was issued in November 2006, and is available on EPA's website: https://www.epa.gov/reg-flex. After considering the guidance, EPA concludes that since this general permit affects less than 100 small entities, it does not have a significant economic impact on a substantial number of small entities.

The RFA defines a "small governmental jurisdiction" as the government of a city, county, town, township, village, school district, or special district with a population of less than 50,000.

F. Unfunded Mandates Reform Act
Section 201 of the Unfunded Mandates Reform Act (UMRA), Public Law 1044, generally requires federal agencies to assess the effects of their "regulatory actions" on tribal, state, and local governments and the private sector. The UMRA defines "regulatory actions" to include proposed or final rules with federal mandates. The draft permit proposed today, however, is not a "rule" and is, therefore, not subject to the requirements of UMRA.