

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF PUERTO RICO

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UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
v.	)	
	)	CIVIL ACTION NO.
	)	
PUERTO RICO AQUEDUCT AND	)	
SEWER AUTHORITY,	)	
	)	
and	)	
	)	
THE COMMONWEALTH OF PUERTO	)	
RICO,	)	
	)	
Defendants.	)	

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CONSENT DECREE

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## BACKGROUND

WHEREAS, Plaintiff, the United States of America, at the request of the Administrator of the United States Environmental Protection Agency (EPA), is filing a Complaint (the “Complaint”) concurrently with lodging of this Consent Decree, alleging that Puerto Rico Aqueduct and Sewer Authority (PRASA) violated the Clean Water Act (CWA), 33 U.S.C. § 1251, *et seq.*, and regulations promulgated thereunder, and PRASA’s National Pollutant Discharge Elimination System (NPDES) Permits issued pursuant thereto, and/or EPA administrative orders issued pursuant to Section 309 of the CWA, 33 U.S.C. § 1319, with regard to the PRASA wastewater treatment plants (“WWTP”) listed in Appendix A (List of WWTPs covered by Consent Decree), water treatment plants (“WTP”) listed in Appendix B (List of WTPs covered by Consent Decree), and the sewers and appurtenances in the Puerto Nuevo Regional WWTP Sewer System;

WHEREAS, PRASA is a public corporation created by legislative enactment and existing under the Laws of Puerto Rico, 22 LPRA §§ 141, *et seq.*, as amended, to administer the aqueduct and sewer system of Puerto Rico;

WHEREAS, PRASA is a “municipality” pursuant to Section 502 of the CWA, 33 U.S.C. § 1362;

WHEREAS, the Commonwealth of Puerto Rico is a “state” pursuant to Section 502 of the CWA, 33 U.S.C. § 1362;

WHEREAS, the Commonwealth of Puerto Rico is also joined as a party under Section 309 (e) of the CWA, 33 U.S.C. § 1319 (e), which requires the state in which a municipality is located to be joined as a party whenever the municipality is a party to a civil action brought by the United States under Section 309 of the CWA;

WHEREAS, the United States, on behalf of EPA, and PRASA previously have entered into judicial consent decrees intended to address alleged CWA violations at various PRASA WTPs, WWTPs, and WWTP Pump Stations, and Safe Drinking Water Act (SDWA) as to three (3) unfiltered WTPs and construction and operation of two WTPs;

WHEREAS, PRASA has also entered into an Amended Settlement Agreement with the Commonwealth of Puerto Rico on behalf of the Department of Health, with respect to alleged SDWA violations at PRASA WTPs (hereinafter referred to as “PRDOH Decree”). EPA works closely with PRDOH in overseeing PRASA’s SDWA compliance and implementation of the PRDOH Decree;

WHEREAS, PRASA owns and operates the WTPs, WWTPs, Pump Stations and the Sewer Systems (including the Puerto Nuevo Regional WWTP Sewer System) addressed in the Complaint and in this Consent Decree;

WHEREAS, the Consent Decree relating to PRASA’s Pump Stations was entered on or about July 2, 2003, and modified in 2007 (hereinafter referred to as “Pump Station Decree”), and was assigned civil action number 01-1709 (JAF);

WHEREAS, PRASA has completed all of the remedial measures required under the Pump Station Decree, including 111 remedial projects at a cost of approximately \$16 million, as well as implementation of the EPA approved Integrated Preventive Maintenance Program (“IPMP”) and Spill Response and Cleanup Plan (“SRCP”) relating to the WWTP Pump Stations;

WHEREAS, the Consent Decree relating to PRASA’s WWTPs was entered on January 10, 2007 (hereinafter referred to as “WWTP Decree”), and was assigned civil action number 06-1624 (PG);

WHEREAS, PRASA has completed all the short term and mid-term remedial actions, certain capital improvement projects, the Preliminary Sanitary Sewer System Evaluation Plan (PSSSEP), the Sanitary Sewer System Evaluation Plan (SSSEP), and the Sanitary Sewer System Evaluation Plan 2 required under the WWTP Decree to date. PRASA also implemented the SRCP, as well as the IPMP relating to the WWTPs. PRASA has spent approximately \$746 million as of Fiscal Year 2015 completing these remedial measures since 2006 when the Decree was signed by the United States and PRASA;

WHEREAS, PRASA, as a result of the measures taken completed all twenty (20) Capital Improvement Projects in the first term of the WWTP Decree. Under the WWTP Decree, the following capital improvement projects were completed under the second term (T2) and third term (T3) projects: El Torito (T2), Mayagüez (T2), Maunabo (T2), Playa Santa (T2), Ponce (T2), Morovis (T2), Boquerón (T2), and Ciales (T3). Some of the capital improvement projects required under the WWTP Decree are no longer necessary for a variety of reasons. This Consent Decree will no longer require the Capital Improvement Projects identified in Appendix C to be completed by PRASA for the reasons set forth in Appendix C.

WHEREAS, the consent decree relating to the CWA violations at PRASA's WTPs was entered on August 24, 2010, and was assigned civil action number 3:10-cv-01365 (SEC). This Consent Decree was modified and such modification was entered on August 29, 2012 (hereinafter referred to as the "WTP Decree");

WHEREAS, PRASA has completed all the short term and mid-term remedial actions, sixteen (16) capital improvement projects, capacity evaluation plans, operator training program, installation of alternative power units ("APUs"), flow meters and high level indicators for all sludge treatment systems ("STSS") at PRASA's WTPs, instituted standard

operating procedures for filter backwashing and washing of process treatment units, and implemented standardized recordkeeping required under the WTP Decree. In addition, PRASA completed the construction of two new water filtration plants (Maizales WTP and Lares WTP), physically eliminated three (3) Public Water Systems (Cubuy, Espino and Río Prieto), and their respective unfiltered water Public Water Systems, and serves filtered water in compliance with the SDWA to the populations once served by the eliminated unfiltered sources. PRASA has spent approximately \$140 million as of Fiscal Year 2015 completing these remedial measures;

WHEREAS, PRASA completed the capital improvement projects at the following WTPs: Anones (T1); Enrique Ortega (T1); La Julita (T1); La Plata-Aibonito (T1); Lares (T1); Las Marías (T1); Maginas (T1); Patillas (T1); Quebrada Arenas (T1); Quebrada Honda (T1); Tanamá (T1); Sergio Cuevas (T1); Yauco (T1); Canóvanas (T2); Jobos (T3) and La Plata-Aibonito (CE Phase I). Some of the capital improvement projects described under the WTP Decree are no longer necessary for the reasons set forth in Appendix D attached to the Decree. This Consent Decree will not require the capital improvement projects identified in Appendix D to be completed for the reasons set forth in Appendix D;

WHEREAS, PRASA has also spent approximately \$850 million as of Fiscal Year 2015 in complying with the PRDOH Decree;

WHEREAS, EPA alleges that PRASA has, during the relevant time period, discharged pollutants without a NPDES Permit authorizing such discharge in violation of Section 301(a) of the CWA, 33 U.S.C. § 1311(a); discharged pollutants in excess of the effluent limitations contained in PRASA's NPDES Permits for its WTPs and WWTPs in violation of Section 301(a) of the CWA, 33 U.S.C. § 1311(a); failed to meet operation and maintenance provisions of the applicable NPDES Permits for its WTPs, WWTPs, including the Puerto Nuevo Regional



WWTP Permit as required by 40 CFR § 122.41(e) and in violation of Section 301(a) of the CWA, 33 U.S.C. § 1311(a); and failed to report discharges as required by the applicable NPDES Permits. EPA further alleges that the Complaint states claims upon which relief may be granted against PRASA under Sections 301(a), 309, and 402 of the CWA, 33 U.S.C. §§ 1311, 1319, and 1342;

WHEREAS, Plaintiff, the United States, and PRASA recognized the existence of combined sewer systems tributary to the Puerto Nuevo Regional WWTP Sewer System and added Attachment 2, Combined Sewer Overflow (CSO) Permit Conditions, to the Puerto Nuevo NPDES Permit issued in 2011, and amended in 2012 and 2014. PRASA has expended approximately \$10 million to date to characterize, model, monitor, clean, inspect, document and plan for CSO control in accordance with the permit requirements and good engineering practices, and towards the purchase of equipment and materials for the Sewer System operation and maintenance program;

WHEREAS, the express purpose of the United States and PRASA entering into this Consent Decree is to resolve the claims alleged in the Complaint, and to address the requirements contained in the Prior Consent Decrees related to the allegations set forth in the Complaint, with the goal of implementing a system-wide NPDES Permit compliance plan, continued implementation of an operation and maintenance plan at all PRASA Facilities, and implementation of remedial measures to address discharges at the Facilities to further the goals of the CWA. The United States and PRASA recognize that the Work being done under this Decree will enable PRASA to better understand its Sewer Systems, but will not resolve all of its CWA obligations with respect to the Sewer Systems;

WHEREAS, it is also the express purpose of the United States and PRASA entering into this Consent Decree to address alleged CWA violations occurring within the Puerto Nuevo Regional WWTP Sewer System;

WHEREAS, PRASA acknowledges that the CWA violations alleged in the Complaints filed in 2006 and 2010 are continuing to date at some of the Facilities identified, since ongoing and prospective capital improvement projects necessary to achieve CWA compliance under the WWTP and WTP Consent Decrees respectively have not been completed at certain Facilities to date;

WHEREAS, PRASA provides wastewater and drinking water services to approximately 3.5 million residents of the Commonwealth of Puerto Rico (including two islands off the main island). The assets PRASA operates and maintains providing these services include 52 WWTPs, 119 WTPs, eight (8) dams, and more than 3,500 ancillary facilities (water storage tanks, pump stations and wells);

WHEREAS, PRASA has documented that it has extremely limited financial resources to address all of the necessary regulatory environmental projects and infrastructure projects concerning the operation of its WWTPs, WTPs, Pump Stations and Sewer Systems. PRASA's financial situation, which includes, among other factors, the downgrade to below grade bond status in the bond market, the decline in population in Puerto Rico and lower revenues as a result of this decline, and higher expenses, has severely affected its ability to borrow money to address its regulatory environmental obligations. To address its limited financial resources, PRASA has developed a "Prioritization System" (description is attached as Appendix E) to provide an objective and systematic guideline to prioritize the implementation of infrastructure projects and required regulatory projects. PRASA consulted with and sought input from both

EPA and PRDOH during the development of its Prioritization System, and PRASA used their input to refine the Prioritization System as appropriate;

WHEREAS, PRASA has provided extensive financial documentation to the United States to verify PRASA's allegations of financial hardship. Taking into consideration the economic impact of a civil penalty and PRASA's documented inability to pay a penalty, the United States is waiving the civil penalty associated with the violations alleged in the Complaint;

WHEREAS, the Plaintiff, the United States of America and PRASA, agree to supersede the Prior Consent Decrees and include certain Puerto Nuevo Regional WWTP Sewer System NPDES Permit CWA requirements in this Consent Decree, as provided herein;

WHEREAS, Plaintiff, the United States of America and PRASA, without making any admission of fact or law, or evidence of same, or of any violation of any permit, law or regulation, agree that: (i) settlement of these unresolved matters in accordance with this Consent Decree is in the best interests of the United States, PRASA and of the public; and (ii) entry of this Consent Decree without further litigation is the most expeditious, economic and appropriate means of resolving this action and the remaining obligations in certain Prior Consent Decrees;

NOW THEREFORE, without admission by PRASA of the non-jurisdictional allegations in the Complaint and upon consent of the United States and PRASA, it is hereby ORDERED, ADJUDGED, AND DECREED as follows:

### **OBJECTIVES**

It is the express purpose of the United States and PRASA in entering into this Consent Decree to further the objectives of the CWA, as enunciated at Section 101, 33 U.S.C. § 1251,

to eliminate unauthorized discharges, to address NPDES Permit effluent limitation exceedances, implement proper operation and maintenance at the Facilities, and to supersede certain Prior Consent Decrees to the extent and in the manner set forth in this Consent Decree. All plans, reports, construction, remedial measures, and other obligations in this Consent Decree or resulting from the activities required by this Consent Decree shall have the objective of furthering PRASA's ability to come into and remain in full compliance with the CWA, and with the terms and conditions of its NPDES Permits.

**I. JURISDICTION AND VENUE**

1. This Court has jurisdiction of the subject matter and over the parties to this action pursuant to 28 U.S.C. §§ 1331, 1345, and 1355 and Section 309 of the CWA, 33 U.S.C. § 1319. PRASA consents to and shall not challenge entry of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree. Venue is proper in this judicial district under 28 U.S.C. § 1391(b) and (c) and § 1395(a).

**II. PARTIES**

2. The Parties to this Consent Decree are as follows:
- a. The United States, being the Plaintiff United States of America, on behalf of the United States Environmental Protection Agency; and
  - b. PRASA, being Defendant Puerto Rico Aqueduct and Sewer Authority, a public corporation created by legislative enactment and existing under the Laws of Puerto Rico, 22 LPRA § 141, *et seq.*, as amended, to administer the aqueduct and sewer system of Puerto Rico.
  - c. The Commonwealth of Puerto Rico is a signatory to this Consent Decree solely and exclusively as a party whose joinder is mandatory pursuant to Section 309(e) of the Clean

Water Act, 33 U.S.C. Section 1319(e). The Commonwealth will have no liability under this Consent Decree except, as set forth in Section 309(e), to the extent that the laws of the Commonwealth of Puerto Rico prevent PRASA from raising revenues needed to comply with this Consent Decree. The Commonwealth represents that its present laws do not prevent PRASA from raising revenues needed to comply with this Consent Decree. The Commonwealth specifically reserves all defenses to any claims pursuant to Section 309(e), including among other defenses that Commonwealth law does not prevent PRASA from raising revenues needed to comply with such judgment. The Commonwealth's signature on this document shall not itself be deemed to be a waiver of sovereign immunity.

**III. APPLICATION AND BINDING EFFECT**

3. The provisions of this Consent Decree shall apply to, inure to the benefit of, and be binding upon the United States, on behalf of EPA; PRASA, its officers, directors, employees, successors in interest and assigns, and upon all persons, agents, firms, subsidiaries, divisions, and corporations acting under or for them, including any entity which may enter into a contract with PRASA to operate any Facility and Sewer System governed by this Consent Decree, and such contractor's officers, agents, directors, employees, parent and related companies, subsidiaries, successors in interest and assigns. The Appendices to this Consent Decree are incorporated herein and shall have the same force and effect as all provisions hereto. The undersigned representatives of the United States and PRASA certify that they are fully authorized to enter into this Consent Decree and to execute and to bind legally each signatory to this Consent Decree.

4. Effective from the Date of Lodging of this Consent Decree until its termination, PRASA shall give written notice of this Consent Decree to any person or entity to whom

PRASA may transfer ownership or operation of any of the Facilities, affected by the terms and requirements of this Consent Decree, and shall provide a copy of this Consent Decree to any such person or entity. PRASA shall notify EPA and the United States Department of Justice in writing of any successor in interest at least twenty-one (21) days prior to any such transfer.

5. PRASA shall make a copy of this Consent Decree available to each engineering, consulting and contracting firm to be retained to perform the Work or any portion thereof required by this Consent Decree upon execution of any contract relating to such Work, and shall inform each such engineering firm, consultant or contractor of the terms of this Consent Decree, and shall also so inform each engineering, consulting and contracting firm already retained no later than thirty (30) days after the Date of Lodging of this Consent Decree. Any action taken by any engineering firm, contractor or consultant to implement PRASA's duties under this Consent Decree shall be considered an action of PRASA for purposes of determining compliance with this Consent Decree.

6. In any action to enforce this Consent Decree, PRASA shall not raise as a defense the failure by any of its agents, contractors, subcontractors, employees, successors or assigns to take actions necessary to comply with this Consent Decree, except as provided under Section XXVII (Force Majeure) of this Consent Decree. This Section shall not limit PRASA's right to take all appropriate action against any person or entity that causes or contributes to PRASA's failure to perform.

#### **IV. DEFINITIONS**

7. Unless otherwise defined herein, the terms used in this Consent Decree will have the meaning given to those terms in the CWA, 33 U.S.C. § 1251 *et seq.*, and the

regulations promulgated thereunder. The following terms, as used in this Consent Decree and for purposes of this Consent Decree only, will be defined as follows:

a. The term “Alternate Power Unit” or “APU” shall mean any device for electricity generation in case of failure of the primary electrical system.

b. The term “Bi-annual Report” shall mean the six (6) month progress report to be submitted by PRASA to EPA pursuant to Section XXV (Bi-annual Reports) of this Consent Decree.

c. The term “Combined Sewer Overflow Outfall” or “CSO Outfall” shall mean, for the purpose of this Consent Decree only, any outfall currently identified and authorized, or identified and authorized in the future, as a combined sewer overflow or CSO in any of the PRASA’s Wastewater Treatment Plant’s NPDES Permits.

d. The term “Combined Sewer Overflow” or “CSO” shall mean any discharge from any NPDES Permit CSO Outfall.

e. The term “Combined Sewer Systems” or “CSS” shall mean the collection and transmission system, and appurtenances thereto, that conveys municipal sewage (wastewater from residences, commercial buildings, industrial facilities and institutions), and stormwater, through a single pipe system to a PRASA’s Wastewater Treatment Plant and/or a CSO Outfall as included in a NPDES Permit.

f. The term “Commencement of Physical Construction” shall mean mobilization of the contractor to the construction site of the project to be constructed, following completion of any necessary procurement steps and issuance of any necessary notice to proceed.

g. The term “Complaint” shall mean the Complaint filed by the United States in this action captioned United States v. Puerto Rico Aqueduct and Sewer Authority, et al., Civ. No. \_\_\_\_\_.

h. The term “Consent Decree” or “Decree” shall mean this Consent Decree, including all Appendices hereto, and any modifications made hereto.

i. The term “Date of Lodging” shall mean the date on which this Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the District of Puerto Rico.

j. The term “Date of Entry” shall mean the date on which this Consent Decree is approved and signed by the Judge for the United States District Court for the District of Puerto Rico.

k. Unless otherwise indicated, the term “Day” or “Days” as used herein shall mean a calendar day or days. References to working days shall mean days of the week other than Saturdays, Sundays, holidays, and days containing half-holidays. In computing any period of time under this Consent Decree, if the last day would fall on a Saturday, Sunday or federal or Commonwealth holiday, the period shall continue until the next day other than a Saturday, Sunday, or holiday.

l. The term “Deliverable” shall mean any written plan, report, map, or other document required to be submitted by PRASA to EPA pursuant to the Consent Decree including its appendices and any updates thereto.

m. The term “Dry Weather Overflow” or “DWO” shall mean for purposes of this Consent Decree only, Combined Sewer Overflow that cannot be attributed to a precipitation event within the hydraulically connected Sewer System. DWOs can include flows from one or



more of the following: domestic sewerage, groundwater infiltration, inflow, illicit connections, commercial and industrial wastewater, and any other non-precipitation event related flow (e.g., discharge of tidal infiltration and/or any connections downstream of the regulator to the outfall pipe).

n. Unless otherwise indicated, “Facility” or “Facilities” shall refer collectively to the Wastewater Treatment Plants (“WWTPs”), Sludge Treatment Systems (“STs”) at the Water Treatment Plants (“WTPs”), and Pump Stations respectively identified in Appendices A (List of WWTPs Covered by CD), B (List of WTPs Covered by CD) and F (List of WWTP Pumping Stations Covered by CD) of this Consent Decree.

o. The term “I/I” shall mean the total quantity of flow from both infiltration and inflow without distinguishing the source.

p. The term “Infiltration” shall mean water other than wastewater that enters a Sewer System as defined by 40 C.F.R. § 35.2005 (b)(20).

q. The term “Inflow” shall mean the water other than wastewater that enters a Sewer System, as defined by 40 C.F.R. § 35.2005(b)(21).

r. Unless otherwise indicated, the term “NPDES Permit” or “Permit” as used herein shall mean the National Pollutant Discharge Elimination System Permit issued to PRASA for each of its WTPs and WWTPs, and shall include renewals, modifications and revisions thereof.

s. Unless otherwise indicated, the term “Prior Consent Decrees” shall mean the consent decrees between the United States and PRASA referred to herein as the Pump Station Decree, the WWTP Decree and the WTP Decree.

t. The term “Prioritization System” shall mean a comprehensive and holistic project scheduling methodology utilized by PRASA to prioritize and plan the expenditures and implementation of capital improvement projects to meet environmental and regulatory obligations for drinking water, wastewater and sludge treatment. The Prioritization System takes into consideration regulatory and environmental compliance, quality of service and reliability, operational requirements and needs, as well as population served by a specific capital improvement project. Specific criteria have been defined and a scoring methodology has been developed in order to objectively rank and prioritize the capital improvement projects PRASA shall undertake. A copy of the Prioritization System description which defines and describes in more detail the Prioritization System is attached as Appendix E.

u. The term “Pump Station” shall mean the integrated entity composed of the last manhole in the gravity sewer line segment that feeds the wet well, the sewer pipe portion in that section, the entrance channel(s), the wet well, bar screen rack and/or comminutor, back flow preventer, the dry well, the pump housing, level indicators, float switches and controllers, plug valves, check valve, air exhaust/ventilation system, the electrical motor control center (“MCC”) and /or control panels, transfer switch, Alternate Power Unit (“APU”) and its fuel tank, the force main which may extend towards the facility property limits, and any other component that is associated with lifting wastewater to higher elevation. The term “Pump Station” in this Decree shall refer only to the Pump Stations that are appurtenances to the WWTPs owned and operated by PRASA, and identified in Appendix F (List of WWTP Pump Stations Covered by Consent Decree).

v. The term “Responsible Official” shall mean the principal executive officer of PRASA or a duly authorized representative, as defined by 40 C.F.R. § 122.22.

w. The term “Sanitary Sewer Overflow” or “SSO” shall mean for purposes of this Consent Decree only, any discharge, diversion, overflow, spill or release to the waters of the United States from or caused by the Sanitary Sewer System through point sources not specified in any NPDES Permit, as well as any release of wastewater from or caused by the Sanitary Sewer System to public or private property that does not reach waters of the United States. However, if PRASA confirms SSOs are caused by laterals, other piping, or conveyance system not owned or controlled by PRASA, those are not SSOs for the purpose of this Consent Decree.

x. The term “Sanitary Sewer System” shall mean for purposes of this Consent Decree only, a sewer intended to carry only sanitary or sanitary and industrial wastewaters from residences, commercial buildings, industrial plants, and institutions as defined by 40 CR Part 35, Subpart E, Section 35.905. It includes all portions of the Sewer System that are not part of a Combined Sewer System.

y. The term “Sewer System” shall mean for purposes of this Consent Decree only, the wastewater collection and transmission system (included, but not limited to: pump stations, pump station’s force mains, gravity sewer pipes/pipelines, overflow structures, weirs, manholes, etc.) owned and/or operated by PRASA that collects and conveys municipal sewage (domestic, commercial, industrial, institutional) to PRASA’s wastewater treatment plants or to a Combined Sewer Overflow Outfall. Sewer System includes both the “Combined Sewer System” and the “Sanitary Sewer System.”

z. The term “Sewer System Operation and Maintenance Program” or “S2OMP” shall mean, for the purposes of this Consent Decree only, a program to manage, operate, and maintain the Sewer System in a manner consistent with wastewater collection system industry

practice, to investigate capacity-constrained Sewer System areas, and respond to SSO and CSO events. The minimum requirements to develop the S2OMP are set forth in Section IX (Sewer System Operation and Maintenance Program and Condition Assessment Program with Respect to the Puerto Nuevo Regional WWTP Sewer System) and in Appendix G attached to this Consent Decree.

aa. The term “Sewer System Reconnaissance” shall mean the inspection activities performed by PRASA that includes the application of appropriate industry proven technologies to confirm and/or update the information as appropriate on existing maps, and where necessary, to identify and/or update the spatial coordinates of manholes for geo-referencing, identify sewer segments requiring cleaning, identify Sewer System interconnections (storm, sanitary, etc.), validate the location of suspected Sewer System interconnections, identify and record any conditions impeding the sewer function and assign PRASA asset identifiers. The inspections of the Sewer System will be performed using, but not limited to, visual observations, smoke test, sonar tests, dye tests, and a pole mounted camera system, which allows an inspection of the manhole structure and all incoming and out-going sewer pipes within the structure without physically entering the manhole.

bb. The term “Sludge Treatment System” or “STS” shall mean a series of processes that collects and/or recycles the Washwater Discharges and subjects all such discharges, and any other discharges with which they are comingled, to physical and/or chemical treatment.

cc. The term “submit,” in regard to documents required to be submitted pursuant to this Consent Decree, shall mean the date the document is placed in the express mail, certified mail, and/or electronic/mail, express courier service, unless otherwise specifically stated.

dd. The term “Substantial Completion” or “Substantially Complete” shall mean, when used in reference to construction projects required under this Consent Decree, the date, as certified by the Professional Engineer in charge of a construction project, when the construction project or specified part thereof is sufficiently completed, in accordance with the design specifications, such that the project or specified part thereof accomplishes the purposes for which it was intended.

ee. The term “United States” shall mean the United States of America, acting on behalf of EPA.

ff. The term “Unauthorized Release” shall mean any overflow, spill, diversion, or release of wastewater within the Sewer System at a location other than a CSO Outfall or that which is a confirmed SSO. This term shall include any release of wastewater from the Sewer System to public or private property that does not reach waters of the United States. However, if PRASA confirms such release of wastewater is caused by laterals, other piping, or conveyance system not owned or controlled by PRASA, those releases will not be considered Unauthorized Releases for purposes of this Consent Decree.

gg. The term “Washwater Discharges” for purposes of Section V (Remedial Measures at Sludge Treatment Systems at WTPs) and Section VI (New STS Plants and Solids Handling) of this Consent Decree only, shall mean spent filter backwash waters and presedimentation/sedimentation tank wash waters that comes from cleaning the water treatment filters. The process to clean the filters is referred to as filter backwash. The water used to clean the filters is expected to be treated at a sludge treatment system prior to discharge to a receiving water body.

hh. The term “Wastewater Treatment Plant” or “WWTP” shall mean the devices or systems of a Publicly Owned Treatment Works, as defined by 40 C.F.R. § 122.2, which is designed to provide treatment (including recycling and reclamation), and storage of municipal sewage and industrial waste, and shall include all of its outfalls as identified in PRASA’s respective NPDES Permits, and those portions of the collection and transmission system from the WWTP up to the last manhole of the pump stations nearest to the plant.

ii. The term “Water Treatment Plant” or “WTP” shall mean that portion of the public water system that provides treatment of raw water and treatment of resulting Washwater Discharges, including but not limited to rapid mixers, flocculators, filters, sedimentation tanks and sludge treatment systems.

jj. The term “Work” shall mean all activities PRASA is required to perform under this Consent Decree. Work under this Consent Decree shall be performed using best engineering practice, best professional judgment and industry standards in compliance with the objectives and terms of this Consent Decree and its Appendices.

**V. REMEDIAL MEASURES AT SLUDGE TREATMENT SYSTEMS AT WATER TREATMENT PLANTS**

8. Under this Decree, PRASA shall implement remedial measures to address Washwater Discharges at WTPs owned and/or operated by PRASA in accordance with Appendix H (Base list for Remedial Measures to address Washwater Discharges at WTPs) and Appendix I (Capital Projects subject to Prioritization). The United States and PRASA agree that these remedial measures will be completed by the deadlines set forth in Appendices H and I. The projects identified in Appendix H are estimated to cost \$72 million.

9. PRASA shall ensure that all WTPs have Flow Meter Devices installed and in operation. For purposes of this Section, the term Flow Meter Devices shall be defined as equipment that captures and records the washwater for WTPs and for every discharge point indicated in the applicable NPDES Permit. The term Flow Meter Devices under this Section also includes the installation and use of flow totalizers to capture amount of flow discharged within a twenty four (24) hour period for WTPs that discharge effluent intermittently.

10. The Flow Meter Devices shall be used with methods to measure flow that are consistent with flow measurement methods that are the accepted scientific and industry practices to ensure the accuracy and reliability of measurements of washwater for WTPs. The Flow Meter Devices shall be capable of measuring flow with maximum deviation of plus or minus 10 percent. Calibration records for any of the flow meter devices shall be kept for at least three (3) years from the date the last calibration was performed. A label indicating current and future dates of calibration, and signed by the calibration technician must be affixed to the Flow Meter Device. The sampling point for the discharge shall be located in the area immediately after the installed Flow Meter Device, unless otherwise specified in the applicable NPDES Permit.

11. PRASA shall ensure that all WTPs have High Level Indicators installed and in operation. For purposes of this Section, the term "High Level Indicator" shall mean high level sensors with visual indicators or alarms so as to indicate when WTP washwaters reach a level just prior to having an overflow from the tank.

12. The High Level Indicators shall be installed in such a manner as to provide sufficient time for the operator to take all measures required to avoid the discharge of pollutants into waters of the United States.

**VI. NEW STS PLANTS AND SOLIDS HANDLING**

13. Any new PRASA WTP that begins operation after the Date of Lodging shall include an APU and a STS with sufficient hydraulic capacity to manage Washwater Discharges.

14. Any STS of any new PRASA WTP that begins operation after the Date of Lodging shall comply with all the terms of this Consent Decree. PRASA further agrees to submit to EPA a NPDES Permit application in accordance with 40 C.F.R. § 122.21 at least 270 days prior to completion of construction of any STS at a PRASA WTP. PRASA will also inform of the Commencement of Physical Construction of any STS at any PRASA WTP in the corresponding Bi-annual Reports.

15. Once a STS is constructed and operational, all sludge generated due to the STS operation shall be:

a. Disposed of in compliance with the applicable requirements established in 40 CFR Part 257. A semi-annual report that is required pursuant to 40 CFR Part 257 shall be submitted to both EQB and EPA notifying them of the method or methods used to dispose of the sludge generated by the STS during the prior six (6) month period. PRASA shall also submit with the initial semi-annual report a copy of the approval or permit received from EQB, as applicable, for the disposal method used. If the disposal method used changes for a particular STS, PRASA shall submit with the semi-annual report submitted pursuant to 40 CFR Part 257 to both EQB and EPA, a copy of the permit or approval received from EQB, as applicable, for the disposal method used.

b. Transported adequately in such a way that the sludge is not discharged to any water body or soil. In the event of a spill of sludge on land or into a body of water, PRASA



shall notify the Point Sources Permits Division of EQB's Water Quality Area as indicated in the NPDES Permits and shall notify EPA within twenty-four (24) hours.

16. Once the STS is constructed and operational, a log book must be kept for the sludge removed detailing the following items:

- a. Description of the sludge removed, date sludge was removed and source of the sludge;
- b. Approximate volume and weight of the sludge removed;
- c. Method by which sludge was removed and transported;
- d. Final disposal and location of the sludge removal; and
- e. Name of the company or individual that performs the service transportation of the sludge.

17. A copy of the Non-Hazardous Solid Waste Collection and Transportation Services Permit issued by the authorized official from EQB must be attached to and kept with the aforementioned log book as required by the NPDES Permit. PRASA must retain the information in the log book for at least two (2) years from the date sludge was removed from the STS.

**VII. REMEDIAL MEASURES AT WASTEWATER TREATMENT PLANTS AND SEWER SYSTEM EVALUATIONS**

18. PRASA shall implement remedial measures to address CWA violations at all of the WWTPs owned and/or operated by PRASA in accordance with Appendix J (Base list of Remedial Measures for WWTPs) and Appendix I (Capital Projects subject to Prioritization). The projects identified in Appendix J are estimated to cost \$138 million.

19. As part of the requirements of Appendix J (Base list of Remedial Measures for WWTPs), PRASA shall no later than December 31, 2016, provide an assessment of the Infiltration/Inflow (I/I) of all PRASA's Sewer Systems except for the seven Sewer Systems where I/I studies have already been completed by PRASA. The assessment shall be submitted to EPA for review and approval, and indicate which Sewer System under the assessment requires an individual I/I study. The dates for I/I studies to be completed for each Sewer System identified as requiring a study in the assessment shall be established under the Prioritization System. The I/I Studies performed by PRASA shall meet the minimum criteria established in Appendix K (Minimum Requirements for I/I Study) of this Consent Decree. All repairs and/or remedial actions deemed necessary by the I/I study in that particular Sewer System shall also be established under the Prioritization System. However, if the repairs and/or remedial actions required by the I/I study at a particular Sewer System cannot be completed within five (5) years of the date of the I/I study, PRASA shall update the I/I study to address any new conditions or changes to the particular Sewer System before implementing all necessary repairs and/or remedial actions.

20. For the seven Sewer Systems (Aguadilla, Bayamón, Isabela, Juncos, La Parguera, San Sebastián and Unibón Morovis) covered by the SSSEP and Sanitary Sewer System Repair Plan 1 (SSRP1) requirements of the 2006 WWTP Consent Decree, the study found necessary repairs pertaining to Bayamón, Isabela, Juncos, San Sebastián New and Unibón/Morovis. The schedule for these repairs are included in Appendix I (Capital Projects subject to Prioritization). The United States and PRASA agree it is not the purpose of this Consent Decree to require PRASA to implement system-wide changes that may be needed to its Sewer Systems with the exception of the Puerto Nuevo RWWTP Sewer System as

addressed in Sections VIII through XII of this Decree. EPA reserves its rights to bring claims for penalties for violations of the CWA relating to PRASA's Sewer Systems, and to seek injunctive relief requiring implementation of system-wide remedial measures to any portion of its Sewer Systems.

**VIII. PUERTO NUEVO COMBINED SEWER SYSTEM AND REGIONAL WASTEWATER TREATMENT PLANT**

21. Combined Sewer Systems Compliance.

a. Compliance with NPDES Permit: PRASA shall at all times comply with all the requirements of its NPDES Permit, including all effluent limitations applicable to Outfall 001 in the Puerto Nuevo Regional Wastewater Treatment Plant (RWWTP)'s Permit and with the requirements set forth in that Permit concerning Combined Sewer System discharges that may occur during wet weather periods when the flow in the Sewer System exceeds the design capacity of the Sewer System.

b. Nine Minimum Controls ("NMC") Compliance. In addition to the reporting requirements in Attachment 2 of the NPDES Permit (effective December 1, 2011, and amended in June 5, 2012 and March 21, 2014), and beginning on November 30, 2015, and continuing each year thereafter until this Consent Decree terminates, PRASA shall submit to EPA for review and approval a revised NMC Report addressing all comments submitted by EPA to any of PRASA's NMC submissions during the previous twelve months if the comments have not been previously addressed by PRASA, including documentation demonstrating the status of PRASA's compliance with each of the NMCs for the CSOs as set forth in EPA's 1994 CSO Control Policy. PRASA shall continue to identify and address each comment raised by EPA in its submissions to PRASA by the date specified by EPA when it

sends its comments to PRASA. If PRASA is unable to document in the submittal that all NMC requirements are being met, the submittal shall also include proposed projects to be performed with compliance schedules for EPA review and approval to ensure that compliance with the NMCs is achieved. In preparing the documentation of the NMC compliance status and the proposed projects, PRASA shall use as guidance the “Guidance for Nine Minimum Controls”, EPA 832-B-95-003, May 1995.

c. To date PRASA has submitted pursuant to the Puerto Nuevo RWWTP Permit, and will continue to submit as practicable given the condition of the Puerto Nuevo RWWTP Sewer System, to EPA for review and approval the following documents listed below in connection with future Long Term Control Plan (“LTCP”) development. The series of reports submitted to date demonstrate that efforts to complete the characterization and subsequent remedial planning must be phased to address the findings of the necessary Sewer System Reconnaissance. EPA intends to include requirements for the LTCP development under a future enforceable document. EPA has provided and will continue to provide comments to PRASA, as appropriate, for PRASA to address in revisions to the submissions identified below:

- i. Quality Assurance Project Plan and Sampling and Analysis Protocols for the Puerto Nuevo RWWTP (December 2012);
- ii. CSO Baseline Demonstration Studies (October 2013);
- iii. 2012 Santurce Sanitary Sewer System Nine Minimum Controls Report (May 2012 and November 2013);
- iv. Combined Sewer System Characterization, Monitoring and Modeling Plan (November 2012);
- v. 2013 Report for the Puerto Nuevo RWWTP CSO Baseline Demonstration Studies (October 2013);
- vi. 2013 Combined Sewer System Characterization, Monitoring, and Modeling Report (November 2013);
- vii. Public Participation Plan for the Puerto Nuevo Wastewater Treatment Plant

- Combined Sewer System; and
- viii. 2014 Combined Sewer Consolidated Characterization, Monitoring and Modeling and Nine Minimum Controls Report (December 2014).

d. For November 2015 and beyond submissions under this Paragraph, PRASA may submit the NMC Report (“NMCR”) and the Combined Sewer System Characterization, Monitoring and Modeling Report (“CMMR”) in one combined report provided that the report submitted has distinct sections that cover the NMCR and the CMMR.

**IX. SEWER SYSTEM OPERATION AND MAINTENANCE PROGRAM AND  
CONDITION ASSESSMENT PROGRAM WITH RESPECT TO THE PUERTO  
NUEVO REGIONAL WWTP SEWER SYSTEM**

22. The Sewer System Operation and Maintenance Plan (S2OMP). No later than December 1, 2015, PRASA shall meet with EPA to report on the status of the development and implementation of the S2OMP. No later than June 30, 2016, PRASA shall submit to EPA for review and approval a S2OMP for the Sewer System hydraulically connected to the Puerto Nuevo RWWTP in accordance with the minimum requirements set forth in Appendix G (Minimum Requirements to Develop S2OMP for Puerto Nuevo RWWTP Sewer System), and the requirements set forth herein in this Decree, to properly operate and maintain the Puerto Nuevo RWWTP Sewer System, to eliminate SSOs and Unauthorized Releases and control CSOs. As part of the S2OMP development, PRASA shall provide preventive maintenance services (which includes at a minimum Sewer System Reconnaissance; Sewer Cleaning; Fats, Oil and Grease Control and SSO, DWO and Unauthorized Release Prevention and Control) of its Sewer System. The S2OMP will evolve and improve as additional information is gathered about the Sewer System. Any minor revisions to the S2OMP shall be addressed in the Progress Meetings held between the EPA and PRASA. Submittal of the revised S2OMP to EPA shall be provided upon request and may include modifications at EPA’s request. Any

modifications proposed by PRASA to the S2OMP that would affect the achievement of the S2OMP goals, shall be submitted to EPA for review and approval.

a. The S2OMP submitted to EPA for review and approval shall include the following key S2OMP elements: (1) clear defined purpose(s) and/or goal(s) of the S2OMP and measures PRASA will use to track progress towards achieving the defined purpose(s) and/or goals of the S2OMP; (2) specific descriptions of the activities PRASA will undertake to comply with the S2OMP in accordance with the minimum requirements set forth in Appendix G (Minimum Requirements to Develop S2OMP for Puerto Nuevo RWWTP Sewer System); (3) description of the trained personnel PRASA will utilize to implement the S2OMP activities; (4) established performance measures to assess the effectiveness of the S2OMP activities in controlling CSOs, reducing SSOs and Unauthorized Releases and eliminating DWOs, protecting water quality and improving the operation and maintenance of the Puerto Nuevo RWWTP's Sewer System; and (5) written procedures for establishing periodic review of the effectiveness of the S2OMP.

PRASA shall begin implementation of the S2OMP immediately upon submittal to EPA of the S2OMP. EPA and PRASA shall meet to discuss implementation of the S2OMP shortly after submittal to EPA. EPA shall use its best efforts to provide comments to PRASA within forty-five (45) calendar days of the meeting date where the S2OMP was discussed. PRASA shall implement in the S2OMP any comments received by EPA within the timeframe agreed to by EPA and PRASA. If PRASA disagrees with any comments received by EPA, PRASA shall meet with EPA within thirty (30) calendar days to discuss any particular comment in dispute. However, all other parts of the S2OMP not in dispute shall be implemented by PRASA according to the deadline set forth in this sub-paragraph. Within ten

(10) Days of the meeting to discuss any EPA comments in dispute, PRASA shall implement EPA's comments or invoke Dispute Resolution under Section XXXI (Dispute Resolution) of this Decree.

b. PRASA shall submit an annual report on the status of the implementation of the S2OMP (hereinafter referred to as "S2OMP Annual Report") in accordance with the minimum requirements to develop the S2OMP as set forth in Appendix G no later than January 30, 2017, and on that date each year thereafter until the Decree is terminated. The S2OMP Annual Report shall discuss all S2OMP activities undertaken during the calendar year, the amount of funds spent on S2OMP activities, how the funds were allocated among the S2OMP activities, and PRASA's efforts to increase the allotted operation budget for S2OMP activities. PRASA may choose to submit the S2OMP Annual Report at the time PRASA submits every other Bi-annual Report; however, the S2OMP Annual Report must be a distinct and separate report that addresses the requirements of this Section. PRASA shall commit to spend no less than seven million dollars (\$7,000,000) per year on S2OMP activities. If after March 30, 2022, the amount spent on S2OMP activities per year has not increased, PRASA shall meet with EPA no later than June 30, 2022, to discuss all of its efforts to increase the amount of funding spent on S2OMP activities.

23. Sewer System Reconnaissance Element. As part of the S2OMP, PRASA shall conduct Sewer System Reconnaissance of all of the sewers hydraulically connected to the Puerto Nuevo RWWTP Sewer System to enable complete inspections, observation and cleaning of the sewers. During Sewer System Reconnaissance PRASA shall undertake appropriate measures to eliminate blockages and overflows within the Puerto Nuevo RWWTP Sewer System in accordance with the EPA approved SRCP. The Sewer System

Reconnaissance of the areas identified on map, attached as Appendix L (Map of Priority Areas) to this Decree, shall be completed no later than three (3) years from the Date of Lodging.

a. If during the Sewer System Reconnaissance or at any other time, PRASA identifies interconnections to or from its Sewer System, PRASA shall notify EPA of the location (including spatial coordinates) to the following EPA SharePoint Site entitled “Puerto Nuevo RWWTP Notifications” within twenty-four (24) hours of discovering the interconnection. PRASA shall also include in the Bi-annual Reports submitted according to Section XXV (Bi-annual Reports) of this Decree, the identification of all interconnections found in the last six (6) months, a description of the specific interconnection found including its location, the approximate flow and extent of the discharge (if known) caused by the interconnection and the community and any waterbodies affected by the interconnection. PRASA shall also report in the appropriate Bi-annual Report on its plans to remedy the interconnections found.

b. PRASA shall eliminate any interconnection found within one (1) calendar year of the date PRASA first became aware of the interconnection. If PRASA anticipates that the interconnection cannot be resolved within one (1) year, PRASA shall submit information to EPA explaining why eliminating the interconnection will require more time, identifying other entities (if applicable) involved in eliminating the interconnection, and the plans to address the interconnection. PRASA shall submit the information explaining why the interconnection cannot be eliminated within one (1) year in the appropriate Bi-annual Report.

24. Sewer Cleaning Element. As part of the S2OMP being submitted to EPA for review and approval referred to above, PRASA shall include a Sewer Cleaning element to address the minimum requirements of the S2OMP as set forth in Appendix G. Data obtained



from the Sewer System Reconnaissance efforts shall be used to establish Sewer System cleaning and re-inspection frequencies for the entire Puerto Nuevo RWWTP Sewer System. For purposes of this Section of the Consent Decree, Cleaning is defined as removal from the Puerto Nuevo RWWTP Sewer System of FOG, debris, solids, sand, roots and/or any other obstructions that have caused or contributed to previous SSOs, DWOs or Unauthorized Releases, and/or that are likely to cause or contribute to the future occurrence of SSOs, DWOs or Unauthorized Releases.

25. EPA and PRASA identified specific areas on the map attached to this Decree as Appendix L (Map of Priority Areas) to commence efforts for Sewer Cleaning and Sewer System Reconnaissance in the Puerto Nuevo RWWTP. The areas depicted on Appendix L (Map of Priority Areas) were identified by EPA and PRASA as the highest priority areas based on the proximity to waterways, condition of the waterways affected, incidence of SSOs and Unauthorized Releases, and the effect of SSOs or Unauthorized Releases on nearby residents and the location of CSO outfalls. Sewer System Reconnaissance of all sewer pipes including the trunk sewers pipes of Miramar, Old San Juan and Hato Rey (San José) located in the areas depicted on the map attached as Appendix L (Map of Priority Areas) to this Decree, and cleaning of less than 30 inch sewer pipes in said areas shall be completed no later than three (3) years from the Date of Lodging. However, if during the Sewer System Reconnaissance and Cleaning of the areas identified on Appendix L (Map of Priority Areas), it is determined that any sewer of the Puerto Nuevo RWWTP Sewer System with a diameter of greater than thirty (30) inches is the cause of SSOs in the areas identified on Appendix L, PRASA shall modify its Sewer System Reconnaissance and Cleaning schedule to include cleaning of such sewer pipes with a diameter of greater than thirty (30) inches or sections thereof. PRASA has

acquired and shall operate at least two (2) flush/vacuum trucks solely dedicated to providing preventive sewer maintenance to assist PRASA in cleaning the sewers, which is an integral part of the Sewer Cleaning and Sewer System Reconnaissance Element of the S2OMP;

26. a. No later than six (6) months prior to concluding the Sewer System Reconnaissance and Sewer Cleaning of the area referenced to above in Paragraphs 23 - 25, PRASA shall submit to EPA for review and approval a schedule for completing the Sewer System Reconnaissance and Sewer Cleaning of the remaining PRASA sewers hydraulically connected to the Puerto Nuevo RWWTP Sewer System. These submissions to EPA by PRASA shall include all information necessary to determine an appropriate schedule to implement the Sewer System Reconnaissance and Sewer Cleaning elements of the S2OMP for the entire Puerto Nuevo RWWTP Sewer System, and shall ensure that PRASA completes the Sewer System Reconnaissance and Sewer Cleaning of all the sewers hydraulically connected to the Puerto Nuevo RWWTP Sewer System.

b. PRASA shall undertake operation and maintenance efforts of the Puerto Nuevo RWWTP Sewer System in accordance with its Permit requirements prior to the implementation of the S2OMP.

27. PRASA shall collect and retain information concerning the general conditions of the pipes, manholes and joints, including but not limited to blockages found; cracked, broken or ruptured pipes; and the diameter and materials of the pipes. PRASA shall provide in each Bi-annual Report submitted pursuant to Section XXV (Bi-annual Reports) a description of all of the sewer defects found during prior six (6) month period during the Sewer System Reconnaissance that hinder the operation of the Sewer System. Any defects found during Sewer System Reconnaissance that hinder operation of the Sewer System requiring repair or

replacement shall be corrected within one year of identifying the defect. If PRASA does not correct the defect within one year of identification of the defect, PRASA shall provide to EPA an explanation of why the repair or replacement will not be conducted within that one year period. If EPA approves and accepts the explanation, PRASA shall include the project in its Prioritization System to ensure that the defect is addressed by PRASA in accordance with the Prioritization System. If EPA does not agree with PRASA's explanation or description of why the repair or replacement will not be conducted within one year, EPA and PRASA shall meet within thirty (30) days of EPA's notification to discuss the appropriate schedule for such repairs or replacements to be undertaken. EPA's decision regarding the schedule for repairs or replacements shall control, and is not subject to dispute resolution under Section XXXI (Dispute Resolution) of this Decree.

28. No later than three (3) years from the Date of Lodging, PRASA shall begin reporting the amount(s) of wet weather and dry weather discharge from CSO Outfalls including estimated flow as PRASA has asserted it does not have the capability to estimate flow as of the Date of Lodging. If PRASA determines that such reporting is not feasible by this date for any of the CSO Outfalls, PRASA shall no later than three (3) years from the Date of Lodging explain to EPA in a written submission why such reporting is not feasible for any portions of the Puerto Nuevo RWWTP Sewer System, as applicable, and provide to EPA the date(s) when such reporting shall be available for the all of the CSO Outfalls.

29. Fats, Oil and Grease (FOG) Control Element. As part of the S2OMP being submitted to EPA for review and approval, PRASA shall revise its current FOG Control Program no later than June 30, 2016, to address at a minimum the requirements set forth in Appendix M (Minimum Requirements To Develop a FOG Control Program). The revised

FOG Control Program shall be implemented as part of the S2OMP. The FOG Control element shall include a schedule for the development and enforcement of grease control measures to assure that grease accumulations are not restricting the capacity of the Sewer System causing or contributing to SSOs, Unauthorized Releases and/or CSOs.

30. Sanitary Sewer Overflows (SSOs), DWOs and Unauthorized Release

Prevention and Control Element. The S2OMP submitted to EPA for review and approval shall include a Prevention and Control Element for responding to and eliminating SSOs, DWOs and Unauthorized Releases from the Puerto Nuevo RWWTP Sewer System. This element shall include the following actions:

a. If an overflow occurs at a CSO Outfall specified in the NPDES Permit, it will be reported as required in the Puerto Nuevo RWWTP Permit. Any DWOs shall also be reported to EPA within twenty four (24) hours of discovery to the following EPA SharePoint Site entitled "Puerto Nuevo RWWTP Notification." Such reporting shall use the form attached in Appendix N (EPA Reporting Form) to this Decree, or a similar form approved by EPA, no later than October 31, 2015, and shall specify the waterbody impacted by the DWO.

b. If an SSO, CSO and/or Unauthorized Release occurs in the Puerto Nuevo RWWTP Sewer System, PRASA shall respond in accordance with the EPA approved SRCP.

c. If a location requires recurrent, programmed and specific actions or the development of a project to eliminate the occurrence of an SSO(s), DWO(s) and/or Unauthorized Release(s) occurring in that location, such location shall be tracked and addressed as part of the Areas of Concern Section (Section XII) of this Consent Decree.

d. Where an SSO or Unauthorized Release has occurred and discharges to the waters of the United States, PRASA shall submit notification in the form attached as Appendix

N (EPA Reporting Form), or a similar form approved by EPA, to the following EPA Share Point Site entitled “Puerto Nuevo RWWTP Notification.” Such notification shall begin no later than October 31, 2015, and identify the location of the SSO or Unauthorized Release (including the physical location and coordinates), the cause of the discharge, waterbody affected, pipe diameter and all action(s) taken to resolve the SSO or Unauthorized Release, as well as any other information regarding the SSO or Unauthorized Release that PRASA determines is necessary to fully understand the nature of the SSO or Unauthorized Release. No later than September 30, 2018, PRASA shall also identify the approximate flow of the SSO or Unauthorized Release on the EPA Reporting Form or a similar form approved by EPA. This notification shall be sent to EPA at the above-identified SharePoint Site within twenty-four hours of discovery of the discharge to a water of the United States.

e. PRASA shall report to EPA in its Bi-annual Report submitted pursuant to Section XXV (Bi-Annual Reports) of this Decree the following information: the location (including physical address and coordinates) of all SSO(s), DWO(s) and/or Unauthorized Release(s) within the last six months, the date(s) of correction(s) within the service area, and any SSO, DWO or Unauthorized Release that has not been corrected within the last six (6) month period and the reasons such SSO, DWO or Unauthorized Release has not been corrected within this six (6) month period.

31. Puerto Nuevo RWWTP Sewer System Condition Assessment Program. Within sixty (60) days of completing the Sewer System Reconnaissance of the Sewer System hydraulically connected to the Puerto Nuevo RWWTP, PRASA shall submit to EPA for review and approval its proposed plan to undertake the Condition Assessment of the Sewer System hydraulically connected to the Puerto Nuevo RWWTP. The plan submitted for EPA review

and approval shall include the proposed schedule for the Condition Assessment. For purposes of this Decree, Condition Assessment shall mean the basic assessment of the condition of the Sewer System to measure the type, severity and extent of deterioration the Sewer System is experiencing. No later than 90 days after the completion of the Condition Assessment, PRASA shall submit to EPA for review and approval a report explaining the findings of the Condition Assessment of the Puerto Nuevo RWWTP Sewer System (hereinafter referred to as the "Condition Assessment Report"). The Condition Assessment Report shall include a schedule for repairs to be completed, or provide for inclusion of remedial measures in the Prioritization System, as appropriate.

**X. CAÑO MARTÍN PEÑA PROJECTS**

32. PRASA shall undertake the sewer and aqueduct projects identified below and described in Appendix O (Description of Caño Martín Peña Projects). These projects are contingent upon the completion of related prerequisite projects to be developed by parties not affiliated with PRASA as explained in Appendix O (Description of Caño Martín Peña Projects). The projects required include:

- a. New Rexach Trunk Sewer Siphon,
- b. North Israel and Bitumul Sanitary Sewer System,
- c. South Israel and Bitumul Sanitary Sewer System,
- d. Las Monjas and Buena Vista Sanitary Sewer System, and
- e. Buena Vista and San Ciprián Sanitary Sewer System.

33. The projects identified above are located within the Caño Martin Peña area and are expected to cost approximately one hundred twenty million dollars (\$120,000,000.00) to

complete. PRASA shall provide in every other Bi-annual Report on the status of the implementation of each of these projects.

**XI. PUERTO NUEVO RWWTP SEWER SYSTEM EVALUATIONS AND REPAIRS**

34. Barriada Figueroa Sewer Inventory and Mapping Project: No later than December 1, 2016, PRASA shall complete the sewer inventory and mapping of the Barriada Figueroa Sewer area (hereinafter referred to as the “Barriada Figueroa Project”) as depicted in the map attached hereto as Appendix P. At a minimum, the Barriada Figueroa Project shall include the identification and description of all sewer structures, including, but not limited to the following: manhole structures, sanitary sewer pipes, and illegal discharges and interconnections found within the Barriada Figueroa area. PRASA shall also include in the Barriada Figueroa Project any information concerning storm sewers and stormwater catch basins identified during field reconnaissance with the understanding that PRASA does not have access to all the storm sewers and catch basins owned and/or operated by the Municipality of San Juan or another third party.

a. No later than February 1, 2017, PRASA shall submit to EPA for review and approval a Barriada Figueroa Sewer Investigation and Mapping Report including the findings of the Barriada Figueroa Project concerning PRASA’s Sewer System. Such Report shall be completed in accordance with the requirements of Appendix Q (Barriado Figueroa Project Report Minimum Requirements).

b. No later than August 1, 2017, PRASA shall submit to EPA for review and approval an Engineering Design Project Report for the Barriada Figueroa area to correct the deficiencies found in the Barriada Figueroa Project. The engineering design project shall aim

to eliminate any interconnections found from PRASA's Sewer System to storm pipes and shall provide the necessary Sewer System improvements and repairs. The Engineering Design Project Report shall include, but is not limited to: proposed actions to repair, replace and/or construct sanitary manholes, sanitary sewer pipes, sanitary pump stations and any other construction necessary to properly operate and maintain the Sewer Systems including a schedule for all proposed actions. The Engineering Design Project Report shall also identify all interconnections found from PRASA's Sewer System to storm pipes and/or structures during the Barriada Figueroa Project, and indicate which have been eliminated and plans to eliminate the remaining interconnections.

35. Sewer System and Maps. PRASA shall submit to EPA revised electronic maps of its Puerto Nuevo RWWTP Sewer System in GIS format on an annual basis along with the second Bi-annual Report submitted according to Section XXV (Bi-annual Reports) of this Decree for each calendar year.

**XII. SPECIFIC REQUIREMENTS FOR THE AREAS OF CONCERN IN THE PUERTO NUEVO REGIONAL WWTP SEWER SYSTEM**

36. Areas of Concern in Puerto Nuevo Area:

a. In order to minimize the occurrence of CSOs and work toward the elimination of SSOs and Unauthorized Releases, EPA has identified specific Areas of Concern within the Puerto Nuevo RWWTP Sewer System that require interim measures to be taken while the Sewer System is being assessed and repaired. The specific Areas of Concern that EPA and PRASA are aware of as of the Date of Lodging are identified in Appendix R (Puerto Nuevo RWWTP Sewer System Areas of Concern) attached to this Decree. Appendix R also indicates the actions that PRASA shall undertake in each identified Area of Concern.



b. As of the Date of Lodging this Decree, PRASA shall undertake the actions identified in Appendix R (Puerto Nuevo RWWTP Sewer System Areas of Concern) for each Area of Concern according to the deadlines identified in Appendix R. PRASA shall submit to EPA the actions taken to the following EPA SharePoint Site entitled “Puerto Nuevo RWWTP Notification” within two (2) working days upon completion of each action required by Appendix R.

c. Removing/Adding to Areas of Concern locations and remedial actions: PRASA may request in writing that EPA remove a particular Area of Concern identified in Appendix R (Puerto Nuevo RWWTP Sewer System Areas of Concern). PRASA may request removal after it has certified to EPA that all of the remedial actions necessary in that particular area have been completed, and no SSOs or Unauthorized Releases have occurred in that particular area in the last twelve (12) months. A location may be considered an Area of Concern by analyzing the following conditions: frequency of SSOs/Unauthorized Releases/DWOs; health/safety effects on the residents of sewage overflows; environmental impacts to water body of sewage overflows; and complexity of the actions needed to resolve the issue. EPA or PRASA may add other locations based on the criteria identified above and specific actions necessary to address the SSOs, Unauthorized Releases or DWOs. EPA may require other interim actions to any of the Areas of Concern as it deems necessary to achieve the goals of the Clean Water Act.

d. The S2OMP submitted to EPA for review and approval under Section IX (Sewer System Operation and Maintenance Program and Condition Assessment Program with Respect to the Puerto Nuevo Regional Wastewater Treatment Plant Sewer System) of this Decree may include a section to address the Area of Concerns requirements in this Consent Decree as part of the S2OMP. All requirements of this Areas of Concern Section shall be

addressed in the S2OMP if PRASA elects to manage the identified and any future Areas of Concern under its S2OMP. Nevertheless, all requirements of this Section pertaining to the Areas of Concern shall be undertaken by PRASA in accordance with the requirements of this Section and Appendix R (Puerto Nuevo RWWTP Sewer System Areas of Concern).

e. Reporting Actions to Address Areas of Concern. PRASA shall report to EPA on the status and plan for addressing each Area of Concern in the Bi-annual Report to be submitted pursuant to Section XXV (Bi-annual Reports) of this Decree. Such report shall include any new Areas of Concern identified pursuant to sub-paragraph 36c.

**XIII. MODIFICATION/PRIORITIZATION OF REMEDIAL MEASURES**

37. Unless otherwise provided in this Consent Decree, PRASA may request in writing that EPA grant an extension of any deadline established in Appendices H (Base List of Remedial Measures to address Washwater Discharges at WTPs), J (Base List of Remedial Measures for WWTPs), and I (Capital Projects Subject to Prioritization) provided that PRASA request the extension no less than sixty (60) days in advance of the deadline for which the extension request is made. EPA may grant the request in writing to PRASA if it determines that the request was timely, good faith efforts to comply with the remedial measures and the timetables identified in Appendices H - J have been made, and good cause for the requested extension exists. The granting of an extension of time pursuant to this Paragraph shall be within EPA's sole discretion and is not subject to Dispute Resolution as provided for in Section XXXI (Dispute Resolution) of this Consent Decree. The granting of an extension request shall not necessarily be deemed a material modification within Section XXXVII (Modification) of this Consent Decree.

38. PRASA may substitute different control technology or equipment units or processes for the projects listed in Appendices H (Base List of Remedial Measures to address Washwater at WTPs), I (Base List of Remedial Measures for WWTPs), and J (Additional Remedial Measures for WTPs and WWTPs) with written notice to EPA prior to the implementation of the substitution, and provided that such control technology or equipment units or processes achieve the same or better results. However, the effectiveness of any control technology is not warranted or endorsed in any way by EPA. The substitution of technology/equipment pursuant to this Paragraph shall not be deemed a material modification within the meaning of this section of this Consent Decree as long as the project(s) completed according to the deadline set forth in Appendices I (Base List of Remedial Measures for WWTPs), J (Capital Projects Subject to Prioritization), and H (Base List of Remedial Measures to address Washwater Discharges at WTPs). PRASA's decision to substitute control technology or equipment units or processes does not alter, or provide a reason to alter, the deadlines in Appendices I, J or H.

39. PRASA is utilizing and will continue to utilize its Prioritization System to plan its expenditures of capital improvement projects to meet PRASA's CWA and SDWA compliance obligations and any requirements of this Consent Decree.

40. PRASA shall input in its Prioritization System no later than August 31, 2016, and on a bi-annual basis after that date, as appropriate, when any of the following occur:

a. PRASA experiences and documents any significant financial changes that affect PRASA's ability to meet the deadlines in Appendix I (Capital Projects Subject to Prioritization). Any significant financial change documented by PRASA shall be consistent with EPA's Financial Capability Assessment Framework for Municipal Clean Water Act

Requirements, dated November 24, 2014

([http://water.epa.gov/polwaste/npdes/cso/upload/municipal\\_fca\\_framework.pdf](http://water.epa.gov/polwaste/npdes/cso/upload/municipal_fca_framework.pdf));

b. New CWA or SDWA obligations resulting from newly promulgated regulations and/or applicable permits; or

c. Any remedial work PRASA determines needs to be implemented if it either: (i) directly relates to PRASA ultimately achieving compliance with the CWA, (ii) directly relates to PRASA ultimately achieving compliance with the SDWA, or (iii) directly relates to PRASA meeting the requirements of this Consent Decree. The remedial work in this sub-paragraph shall only be included in the Prioritization System if it requires a significant financial cost to complete.

41. Notwithstanding the requirements of Paragraph 40 above, at any time EPA may, in its sole and unreviewable discretion and not subject to dispute resolution pursuant to Section XXII (Penalties) of this Consent Decree, identify projects that will entail significant financial costs to undertake for inclusion in the Prioritization System that directly relates to PRASA achieving compliance with the CWA or this Consent Decree. If requested by PRASA, EPA and PRASA agree to meet and confer within thirty (30) Days of receiving EPA's written notification to include such project in the Prioritization System.

42. After PRASA completes its run of the Prioritization System as provided for in this Section, and to the extent the Prioritization System indicates that any changes to Appendix I (Capital Projects Subject to Prioritization) of this Decree, or the Decree with PRDOH, are necessary, PRASA shall report (hereinafter referred to as the "Prioritization Report") to EPA and PRDOH the results of the Prioritization System analysis within fifteen (15) days of completing its analysis under the Prioritization System. The Prioritization Report submitted to

EPA and PRDOH for their review and approval shall include but not be limited to the following information: 1) explaining the significant financial change (including but not limited to all financial documents and relevant correspondence explaining the significant financial change); 2) identifying the specific environmental obligation including the proposed scope of work (including any necessary studies) to address the environmental obligation and the projected costs (to the extent known) associated with the environmental obligation; 3) the impact of the environmental obligation on the population served and/or affected; 4) other items specifically identified to be considered in the Prioritization System; and 5) any additional information EPA requires in order for EPA to consider any changes under this Decree that the Prioritization System deems necessary. If no new significant financial changes and/or no new CWA or SDWA compliance obligations have arisen since the last Prioritization System was run and approved by EPA, PRASA is not required to run the Prioritization System and report to EPA and PRDOH. PRASA shall report to EPA in its appropriate Bi-annual Report if it is not running the Prioritization Report for the reasons stated above.

43. PRASA has an ongoing obligation until Termination of this Decree to submit a Prioritization Report to EPA and PRDOH within fifteen (15) days of completing its analysis under the Prioritization System consistent with the terms of this Section of this Consent Decree.

44. EPA and PRASA agree to meet and confer within thirty (30) Days of EPA receiving the Prioritization Report. As appropriate, EPA and PRASA may invite PRDOH to attend these meetings to discuss the various environmental obligations discussed in the Prioritization Report.

45. PRASA shall provide to EPA the following financial information no later than August 31, 2016, and annually each year thereafter: projected budget for next fiscal year, debt service coverage ratio, senior lien coverage ratio, liquidity, any approved future rate increases, status of debt to plant ratio, key financial ratios monitored internally and for lender(s), current bond ratio and current bond ratings, number of customers by service pipe, and other financial information requested by EPA. PRASA shall also submit its most recent annual financial report, bond prospectus issued during prior year and any rating agency report received during the previous year. In addition to financial reporting requirements, PRASA shall provide notice to EPA consistent with Section XXVIII (Notices) of this Decree, of any change in bond rating status within twenty (20) days of any such change. For purposes of this Section of the Consent Decree, significant financial cost means the cost to complete a specific remedial measure of no less than one million dollars (\$1,000,000.00).

46. The United States and PRASA anticipate that utilizing the Prioritization System will likely require modification of some of the remedial measures listed in Appendix I (Capital Projects Subject to Prioritization). Any material modification of the remedial measures shall be consistent with the procedures identified in Section XXXVII (Modification).

**XIV. INTERIM EFFLUENT LIMITS FOR WTPS and WWTPS**

47. Commencing from the Date of Lodging, and continuing until the established deadlines for each WWTP listed in Appendix S (Interim Effluent Limits for WWTPs) and each WTP listed in Appendix T (Interim Effluent Limits for WTPs), PRASA shall comply with the respective interim limitations set forth for each of the WWTPs and WTPs listed in Appendices S and T. For each pollutant for which an interim limit is established in Appendix S with respect to the WWTPs, and Appendix T with respect to the WTPs, PRASA shall monitor

for compliance with the same measurement frequency and sample type as specified for that pollutant in the respective NPDES Permit for each WWTP and WTP, and shall submit the results of each sample on the monthly Discharge Monitoring Reports (DMRs) submitted for each WWTP and WTP in accordance with its respective NPDES Permit.

48. During the period that the interim effluent limitations are in effect for those WWTPs and WTPs with NPDES Permits, PRASA shall comply at all times with all other conditions and limitations set forth in the NPDES Permit for each WWTP and WTP.

49. Once the time frame for interim limits set forth in Appendices S (Interim Effluent Limits for WWTPs) and T (Interim Effluent Limits for WTPs) expire, PRASA must comply with all terms, conditions and limitations set forth in each individual NPDES Permit for each WWTP or WTP. However, PRASA may request from EPA an extension of its interim limits only if it still cannot comply with the effluent limitations set forth in its NPDES Permit or a NPDES Permit has not yet been issued provided that PRASA has:

- a. complied with all remedial measures;
- b. implemented the IPMP and continues to implement the IPMP as amended, if applicable; and
- c. submitted necessary information to Puerto Rico's Environmental Quality Board for the Water Quality Certificate for the affected WTP or WWTP; and applied to EPA for a NPDES Permit or modifications to its NPDES Permit.

50. The request must specify what measures have been taken by PRASA to comply with its Permit and/or to receive a modification to its Water Quality Certificate or NPDES Permit, and an explanation of the amount of time needed for the extension of the interim limits. EPA's determination regarding whether or not the interim limits are extended is in EPA's

unreviewable discretion and shall not be subject to the provisions of Section XXXI (Dispute Resolution).

51. In the event new or revised NPDES Permit effluent or water quality standards limitations arise that require modification of treatment facilities at PRASA WWTPs and WTPs, interim limits shall be developed and implemented as set forth herein for the time period required to complete the remedial measures necessary. If STSs of the WTPs Almirante Sur, Frontón, and Hogares Seguros referred to in Paragraph 66 are issued a NPDES subsequent to the Date of Lodging, PRASA may request from EPA specific interim limits between twelve (12) to fifteen (15) months after the effective date of each NPDES Permit.

**XV. INTEGRATED MAINTENANCE PROGRAM**

52. All WTP STSs, WWTPs and Pump Stations under this Consent Decree shall be operated and maintained in accordance with the EPA-approved Integrated Preventative Maintenance Program presently known as the Integrated Maintenance Program (“IMP”). PRASA shall continue to implement the EPA approved IMP, which meets the minimum requirements set forth in Appendix U (Minimum Requirements of the Integrated Maintenance Program) of this Consent Decree.

53. PRASA may submit to EPA for review and approval a request for modification of the IMP. Any modifications to the IMP made pursuant to this Paragraph shall not be deemed a material modification within the meaning of Section XXXVII (Modification) of this Consent Decree.

54. No later than March 1, 2017, PRASA shall develop and submit to EPA for review and approval a Corrosion Control Program to add to the implementation of the IMP.



The Corrosion Control Program shall address the minimum requirements set forth in Appendix V (Minimum Requirements for Corrosion Control Program), attached to this Decree.

55. Stipulated penalties shall be assessed for the failure to implement any of the minimum requirements of the IMP as set forth in Appendix U (Minimum Requirements for Development of the IMP) of this Consent Decree. PRASA may also be assessed for failure to implement other components of the IMP if EPA, in its discretion, determines that such failure is hindering PRASA's compliance with this Consent Decree and/or the terms and conditions of each individual Facility's NPDES Permits. Such penalties for failure to implement the IMP shall be assessed in accordance with the provisions of Section XXII (Penalties). Nothing herein shall prohibit the simultaneous accrual of stipulated penalties for separate violations of the IMP.

**XVI. TRAINING AND ADDITIONAL REQUIREMENTS FOR OPERATORS**

56. All new STS or WWTP operators hired by PRASA must be trained in monitoring, recording and reporting requirements of the individual NPDES Permits as applicable within six (6) months of the commencement of employment as an operator. Following said six (6) months of the commencement of employment of any new STS or WWTP operator, PRASA shall certify in the appropriate Bi-annual Report that the training required under this Paragraph has been completed.

57. PRASA shall also submit to EPA for review and approval a training program no later than 180 days from the Date of Lodging that provides for periodic training to all STS and WWTP operators in monitoring, recording and reporting requirements of the individual NPDES Permits and requirements of this Decree. Such training program shall include any requirements of this Decree that affect the STS and WWTP operators' responsibilities, and

shall consider any new requirements that have arisen since the last training was performed, the time that has passed since the majority of operators have been trained, and set forth a proposed schedule to provide training to these operators.

58. All PRASA WWTPs and WTPs shall have a Commonwealth licensed operator available at all times to ensure proper operation of the treatment facilities in accordance with Law 53 of July 13, 1978. All new operators at WWTPs and WTPs hired after the Date of Entry of this Decree shall obtain a Commonwealth license within twenty-four (24) months of the operator's start date.

**XVII. CONTINUED IMPLEMENTATION OF A PROCESS CONTROL SYSTEM**

59. PRASA has implemented a Process Control System ("PCS") at all of PRASA's STSs and WWTPs. PRASA shall continue to implement the PCS in accordance with potable water and wastewater industry standards which includes, but shall not be limited, to the following items:

- a. Process Control Manual with Procedures and Guidance for all processes related to the treatment of Washwaters at the STSs and wastewater at the WWTPs;
- b. Accurate measurements of flow, its chemical, physical and biological characteristics and mass balances;
- c. Logs and records for all activities, processes and tests performed at the STSs and WWTPs;
- d. Tests for upper and lower plant operational parameters for all WWTPs where applicable such as: chemical oxygen demand (COD), biochemical oxygen demand (BOD), turbidity, dissolved oxygen (DO), temperature, total residual chlorine (TRC), jar tests for

polymer selection, polymer application rates, disinfection application rate, filter backwash required frequency (only for tertiary WWTPs), organic loading, sludge age, clarifier loading rates, clarifier sludge blanket, Mixed Liquor Volatile Suspended Solids (MLVSS), Food/Mass (F/M) Ratio, Mean Cell Residence Time (MCRT), flow, return sludge (recirculation rates), Sludge Volume Index (SVI), biomass air requirements, recirculation patterns, sludge settleability (settleable solids), sludge reduction volume, chemical dosages for stabilization, total phosphorus, centrifuge test and microscopic analysis;

e. Tests for upper and lower plant operational parameters for all STSs where applicable such as: turbidity, dissolved oxygen, temperature, total residual chlorine, polymer application rates, disinfectants application rate, flow, thickener sludge depths, settleable solids;

f. Trouble-shooting guides to keep process for proper process parameters within recommended industry values where required;

g. Organizational structure for implementation of PCS including the identification of personnel responsible for PCS implementation including technical support and laboratory feedback;

h. Calculations for optimizing performance;

i. A process management plan which estimates treatment goals based on applicable permit requirements for each WWTP and STS; and

j. Continuous monitoring of equipment already installed (i.e. flow meters, gauges), including proper calibration as required by the NPDES Permit, to ensure a proper operational condition.

60. PRASA shall identify for each STS and WWTP (including any STS or WWTP that begins operation after the Date of Lodging), and update as appropriate, all personnel

responsible for implementation of PCS, including technical support and laboratory feedback in the appropriate Bi-annual Report(s). All personnel responsible for implementation of PCS, which shall at a minimum include operators and their respective supervisors, shall receive annual training including refresher courses as deemed appropriate by EPA and PRASA.

61. PRASA's PCS Plan(s) shall be periodically updated and revised to address, as appropriate, new regulations, treatment process changes, new equipment and/or treatment units installed/eliminated, and addition/elimination of chemicals (e.g., polymers, etc.). For all new STSs and WWTPs commencing operation after entry of this Decree, the PCS shall be established and in full operation within six (6) months of the start of operation of the STS or the WWTP.

**XVIII. SPILL RESPONSE AND CLEANUP PLAN**

62. PRASA has implemented and shall continue to implement a Spill Response and Cleanup Plan ("SRCP") that specifies actions to be taken by PRASA to address SSOs, Unauthorized Releases and CSOs from all Facilities. For this Section of the Decree, Facilities shall also include all Sewer Systems owned and/or operated by PRASA, irrespective of whether such Sewer Systems are otherwise covered by this Decree.

63. Under the SRCP, PRASA shall utilize the form attached as Appendix N (EPA Reporting Form) to the Decree, or a similar form as approved by EPA, to report every Unauthorized Release and SSO that occurs from a point not authorized by a NPDES Permit. Reporting using the form attached as Appendix N shall begin no later than October 31, 2015. EPA shall notify PRASA of the applicable Share Point Site to submit the EPA Reporting Form.

64. PRASA shall be responsible for familiarizing the responsible officials and appropriate employees with the terms of the SRCP, and in the event of PRASA's failure to implement the SRCP PRASA shall not raise as a defense its failure to inform the responsible officials and appropriate employees.

65. PRASA shall submit an updated SRCP in accordance with the requirements of Appendix W (Minimum Requirements for SRCP) for EPA review and approval no later than October 31, 2015, and shall submit updates on that date annually thereafter as necessary. Each update of the SRCP shall be submitted to EPA for review and changes to the SRCP shall be incorporated into and become enforceable under this Decree. Any proposed amendments to the SRCP that are identified as critical with respect to the proper operations of the Facilities and the Sewer System shall be submitted by PRASA to EPA for review and approval. Any dispute with respect to any portion of the SRCP or amendments to the SRCP shall not delay the development or implementation of the undisputed portions of the SRCP, to the extent feasible.

**XIX. MONITORING, RECORDS AND REPORTING REQUIREMENTS FOR UNPERMITTED STS**

66. For any existing STS that does not have an effective NPDES Permit, or upon the start of operation of any new STS at a WTP that does not have a final NPDES Permit, PRASA shall sample monthly the discharge for the following parameters: BOD, Color, Copper, Fluoride, Temperature, Total Ammonia, Total Dissolved Solids, Total Phosphorous, Lead, Zinc and Turbidity. The discharge shall also be sampled and analyzed daily for the following parameters: Dissolved Oxygen, Flow, pH, Temperature, Turbidity and Total Residual Chlorine. All monthly and daily samples shall be grab samples, except for BOD and flow. BOD samples shall be composite and flow recorded daily. The monitoring of this

discharge shall continue until such time as a final NPDES Permit is issued for the WTP at which time the WTP shall comply with the requirements of the respective NPDES Permit. The results of this monthly and daily monitoring shall be reported to EPA in the Bi-annual Progress Report. The STSs that currently have a completed NPDES Permit application pending and have not received a NPDES Permit are: Almirante Sur, Frontón, and Hogares Seguros.

**XX. WASTEWATER TREATMENT CAPACITY AND FLOW MANAGEMENT**

67. PRASA's Existing Sewer Connection Policy. The United States and PRASA mutually agree that an effective system for managing wastewater treatment capacity is essential for protecting the environment while also allowing economic growth and development on Puerto Rico. PRASA shall continue to implement its sewer connections policy as set forth below:

a. Evaluate whether there is adequate treatment capacity at a wastewater treatment plant to accommodate additional flows from a proposed development project based on a capacity management tool of PRASA's Public and Private Projects Office (PPP) database.

b. Automatic Sewer Ban

i. If any WWTP exceeds one hundred five percent (105%) of its Monthly Average Permitted Flow as defined in its NPDES Permit for three (3) consecutive months or is predicted to exceed one hundred five percent (105%) based on flows that have been approved but not yet connected, PRASA shall immediately impose a ban on any applications for new sewer connections to such WWTP. The ban on new sewer connection includes any new flows that are added, connected, or transported (by any means) into the service area of a PRASA WWTP, which flows are intended to be treated by that PRASA WWTP. For those WWTPs that do not have a Monthly Average Permitted Flow to be used in this Paragraph, is the Monthly Average Permitted Flow as set forth in Appendix X (Monthly Average Permitted Flow).

ii. Any flows, either existing or anticipated, which PRASA has already

approved but which have not yet been connected or accepted at the WWTP shall be allowed provided that the predicted Monthly Average Permitted Flow will not exceed one hundred five percent (105%).

c. If PRASA has applied for an increase in the permitted treatment capacity of a WWTP and EPA concludes that there is a reasonable probability that it may be granted, and if said WWTP is in regular compliance with the effluent limitations of its NPDES Permit, other than permitted flow, PRASA may continue to grant applications for new sewer connections while the application for an increase in permitted capacity is pending but not acted upon as long as the WWTP remains in regular compliance with the effluent limitations of its NPDES Permit, other than permitted flow.

d. If an applicant provides an offset in the amount of 110% of the amount this new connection will increase the demand for capacity if PRASA were to approve the application, PRASA may nonetheless grant the application for new sewer connections, conditioned on the actual performance of the offsets in an amount no less than 110% of the increase in capacity attributable to the application. (For example, if an applicant applies for a new sewer connection that would add 10,000 gallons per day, the applicant must offset this increase with a reduction of 11,000 gallons per day). The 110% offset may consist either of (1) an increase in the WWTP's treatment capacity to be completed prior to the approved flows being connected to or accepted at the WWTP, and/or (2) verifiable demand reductions (such as replacement of existing flow-generating equipment with more efficient equipment, or reduction of infiltration flows as by repair of sewer pipelines).

e. Any automatic sewer connection ban imposed shall be lifted once PRASA submits to EPA documentation certifying that the average monthly flow to the WWTP is less

than 100% of the Monthly Average Permitted Flow for a period of two (2) consecutive months.

68. Notice of Changes. In the event that PRASA proposes to change in any material respect the above described sewer connection policy PRASA shall provide sixty (60) days written notice of the proposed changes to EPA. If EPA within sixty (60) days of receiving notice objects in writing to any of the proposed changes on the grounds that the changes would violate the purposes of this Consent Decree, the changes objected to shall be temporarily held in abeyance and shall not go into effect while the United States and PRASA pursue Dispute Resolution under Section XXII (Penalties) of this Consent Decree.

69. Notice of Deficiency. In the event that EPA believes that the implementation of the sewer connection policy by PRASA is not effective at managing treatment capacity at one or more WWTPs, EPA shall provide written notice to PRASA of a deficiency, including a statement of EPA's reasons for believing that the PRASA's policies or implementation are not effectively managing WWTP capacity. EPA and PRASA agree to meet informally within thirty (30) days to discuss changes to policies or implementation to cure the deficiencies. If they are unable to agree on changes to policies or implementation to address the deficiencies, either Party may invoke Dispute Resolution under Section XXXI (Dispute Resolution) of this Consent Decree.

70. Flow Meter Devices. PRASA shall ensure that all WWTPs have flow meter devices installed and in operation. For purposes of this Section, the term Flow Meters shall be defined as equipment that captures and records the effluent wastewater flow for all WWTPs and for every discharge point indicated in the applicable NPDES Permit. The term Flow Meter Device under this Section also includes the installation and use of flow totalizers to capture



amount of flow discharged within a twenty four (24) hour period for WWTPs that discharge effluent intermittently.

71. The flow meter devices at WWTPs shall be used with methods to measure flow that is consistent with the accepted scientific and industry practices to ensure the accuracy and reliability of measurements of effluent wastewater flow for WWTPs. The flow meter devices shall be capable of measuring flow with maximum deviation of plus or minus 10 percent. Calibration records for any of the flow meter devices shall be kept for at least three (3) years from the date the last calibration was performed. A label indicating current and future dates of calibration, and signed by the calibration technician must be affixed to the flow metering device. The sampling point for the discharge shall be located in the area immediately after the installed flow meter device, unless otherwise specified in the applicable NPDES Permit.

**XXI. REVIEW AND APPROVAL PROCEDURES**

72. Unless indicated otherwise in this Consent Decree, the following review and approval procedures set forth in this Section shall apply with respect to any plan, program or other document which is required to be submitted for EPA approval pursuant to this Consent Decree:

a. After receipt and review of any plan, program or other document which is required to be submitted for approval pursuant to this Consent Decree, EPA may (1) approve the submission; (2) approve the submission or portions of the submission upon specified conditions; (3) approve part of the submission and disapprove the remainder; or (4) disapprove the submission and direct PRASA to modify the submission. If PRASA has not received comments from EPA within 60 days of its submissions to EPA, EPA and PRASA shall schedule a meeting as soon as practicable to discuss the submission.

b. In the event of approval of the complete submission, PRASA shall proceed to take any actions required by the plan, program or other approved document, in accordance with the schedule contained therein, as approved in writing by EPA.

c. In the event of written approval of portions of the submission or approval upon specified conditions, PRASA shall proceed to take the actions identified in the non-deficient portion of the plan, program, other document, or portion thereof, if severable, in accordance with any applicable conditions specified by EPA, subject only to PRASA's right to invoke the Dispute Resolution procedures set forth in Section XXXI (Dispute Resolution) of this Consent Decree with respect to the conditions imposed or the disapproved portions. Implementation of any non-deficient portion of the submission shall not eliminate the potential for PRASA to incur stipulated penalties pursuant to Section XXII (Penalties) based on PRASA's failure to meet other approved requirements of the submission so long as such other approved requirements are technically severable from the disapproved portion(s) of the submission.

73. Upon receipt of a notice of disapproval of all or part of a submission from EPA, PRASA shall, within thirty (30) days, correct the deficiencies as directed by EPA's written comments and resubmit the plan, program or other document for approval. Any stipulated penalties applicable to the original submission, as provided in Section XXII ( Penalties) of this Consent Decree, shall accrue during the 30-day period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or is materially deficient.

74. In the event that a resubmitted plan, program or other document, or portion thereof, is disapproved by EPA, EPA may again require PRASA to correct the deficiencies in accordance with Paragraph 72a, subject to PRASA's right to invoke the Dispute Resolution

procedures set forth in Section XXXI (Dispute Resolution) of this Consent Decree and the right of EPA to seek stipulated penalties as provided in Section XXII (Penalties).

75. If PRASA timely submits or resubmits an item for review and approval or comments under this Consent Decree, and if EPA fails to approve, provide comments or otherwise act on a submittal within sixty (60) days of receipt of the submittal, PRASA shall be entitled to an extension of any interim or final deadlines which PRASA can demonstrate that it will be unable to meet as a result of the length of the review process. Any such request must be in writing and must identify the deadlines for which an extension is requested, the length of the extension requested, and set forth the basis for each such request. In the event that EPA should disapprove, in whole or in part, the extended deadline requested by PRASA, PRASA may invoke Section XXXI (Dispute Resolution) of the Consent Decree.

76. If PRASA submits or resubmits a plan, program or other document that fails to contain all of the required elements as set forth in the appropriate Section or Appendix pertaining to the requisite contents of the (i) the Corrosion Control Plan (part of the IMP); (ii) Bi-annual (or other) Progress Reports; (iii) S2OMP; (iv) Areas of Concern; (v) NMCR; (vi) CMMR; (vii) SRCP; and (viii) any other submissions developed in accordance with Sections V (Remedial Measures at WTPs) and VII (Remedial Measures at WWTPs and Sewer System Evaluations) and Appendices H (Base List of Remedial Measures for WTPs), I (Capital Projects Subject to Prioritization), and J (Base List of Remedial Measures for WWTPs), PRASA shall be deemed to have failed to make the submission, unless PRASA invokes the Dispute Resolution procedures in Section XXXI (Dispute Resolution). In the case of a submission or resubmission that fails to contain all the required elements, stipulated penalties begin to accrue on the date the submission or resubmission was due.

77. PRASA may request in writing that EPA grant an extension of any deadline established by this Consent Decree, and EPA shall grant in writing if it determines that good faith efforts to comply with the timetables established in this Consent Decree have been made and good cause for the requested extension has been shown. The granting of such an extension pursuant to this Paragraph is not necessarily a material modification within the meaning of Section XXXVII (Modification) of this Consent Decree.

## **XXII. PENALTIES**

### *Stipulated Penalties Under Prior Consent Decrees*

78. Under the WWTP Decree and the WTP Decree, PRASA was permitted to pay certain stipulated penalty amounts into an escrow account. The penalties permitted to be placed into escrow included penalties pertaining to exceedances of the monthly average effluent limitation for either interim effluent limitations or final NPDES Permit effluent limitations. These stipulated penalties were placed into escrow because a certain percentage of the stipulated penalty amount would be returned to PRASA for completing short term, mid-term or long term capital improvement projects ahead of the deadline set forth in either the WWTP or WTP Consent Decree. The percentage amount returned to PRASA depended upon the number of days the project was completed ahead of schedule. These amounts were not due and owing to the United States. As of December 31, 2014, PRASA has placed \$5,068,588.00 in an escrow account. EPA and PRASA have determined that \$5,001,688.00 of this amount is now due and owing to the United States from the amounts placed into the escrow account. PRASA shall pay this amount to the United States according to the instructions set forth in Paragraph 86 no later than thirty (30) days from the Date of Lodging. The sum of \$66,900.00 shall be returned to PRASA for completing projects ahead of schedule as authorized in Prior

Consent Decrees. PRASA has agreed to cease placing stipulated penalties under either the WWTP or WTP Consent Decree into escrow account for stipulated penalties that accrued after December 31, 2014. Any effluent limitation violations that occurred after December 31, 2014, and occur through the Date of Entry, shall be paid to the United States at the stipulated penalty amounts indicated in Paragraph 42b and 42c of the WWTP Decree and Paragraph 63b and 63c of the WTP Decree. PRASA shall pay the amount owed during this period to the United States no later than ninety (90) days from the Date of Entry.

79. If PRASA fails to pay the stipulated penalty amount of \$5,001,688.00 by the due date referenced in Paragraph 78, interest shall thereafter accrue at the rate calculated pursuant to 28 U.S.C. § 1961 through the date of payment. The payment of interest shall be in addition to any stipulated penalties that may accrue pursuant to this Penalties Section.

*Stipulated Penalties Under This Consent Decree*

80. PRASA shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified below, unless excused under Section XXVII (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree. The stipulated penalties shall be paid by PRASA to the United States after receiving written demand by EPA, except where otherwise indicated, for stipulated penalties in the amounts set forth below for the below listed violations of this Consent Decree. Each violation described below pertains to each Facility and Sewer System covered by this Consent Decree unless otherwise indicated.

a. For each day that PRASA fails to implement and complete the requirements specified for each Facility and Sewer System covered by this Consent Decree in accordance with the applicable schedules, including all benchmarks and interim deadlines developed after the Effective Date of this Decree, PRASA shall be liable for stipulated penalties as follows:

<u>Period of noncompliance</u>	<u>Per day per violation</u>
1 - 60 days	\$200
61 - 120 days	\$1,000
Over 120 days	\$2,500

The above referenced stipulated penalties shall accrue per violation per day for each violation of the requirements under this Decree as indicated below:

- i. failing to comply with the deadlines developed pursuant to Section V (Remedial Measures at WTPs), and Section VII (Remedial Measures at WWTPs and Sewer System Evaluations) as set forth in Appendices H (Base List of Remedial Measures to Address Washwater Discharges at WTPs), Appendix I (Capitol Projects Subject to Prioritization), and Appendix J (Base List for Remedial Measures for WWTPs, which includes the I/I studies and repairs as required by Paragraph 19;
- ii. failing to ensure that Flow Meter Devices installed and in operation at the WTPs and WWTPs as required by Paragraphs 9-10 and 70-71;
- iii. failing to ensure that new WTPs have APUs installed as required by Paragraph 13;
- iv. failing to ensure that High Level Indicators are installed and in operation at the WTPs as required by Paragraphs 11-12;
- v. failing to notify EPA within twenty-four (24) hours if sludge generated by STS is spilled onto land or water;
- vi. failing to keep a log book for sludge removed from each STS according to each requirement as set forth in Paragraph 16;
- vii. failing to retain the log book for at least two (2) years as required by Paragraph 17;

- viii. failing to undertake the Caño Martín Peña Projects as required by Paragraph 32 and Appendix O;
- ix. failing to complete the Barriada Figueroa Sewer Project as required by Paragraph 34;
- x. failing to eliminate the interconnections found in the Sewer System as required by Paragraph 23b.;
- xi. failing to establish PCS at new STSs or WWTPs according to requirements of Section XVII (Continued Implementation of PCS); or
- xii. failing to implement the minimum requirements of the SRCP (which includes notifications of SSOs and Unauthorized Releases island-wide) as required by Section XVIII (SRCP) and Appendix W (Minimum Requirements of SRCP) to the extent that stipulated penalties have not been addressed by Paragraph 80b below.

b. For each day PRASA fails to implement the S2OMP for the items identified below, PRASA shall be liable for the stipulated penalties as follows:

<u>Period of noncompliance</u>	<u>Per day per violation</u>
1 - 30 days	\$200
31 - 60 days	\$1,000
Over 60 days	\$2,500

The above referenced stipulated penalties shall accrue per violation per day for each violation of the requirements under the S2OMP Section of this Decree, which includes the items listed below and other items that may arise as the S2OMP develops:

- i. failing to complete the Sewer System Reconnaissance and Sewer Cleaning as required by Paragraphs 23 and 24 and Appendix L;
- ii. failing to modify schedule for sewer cleaning and reconnaissance as required by Paragraph 25;
- iii. failing to operate and utilize maintain at least two flush/vacuum trucks solely dedicated to providing preventive sewer maintenance to assist PRASA in cleaning the sewers as required by Paragraph 25;

- iv. failing to notify the public of CSO occurrences as required in the NPDES Permit and Paragraph 30a;
- v. failing to estimate flows of the amount of discharges from CSO Outfalls according to schedule identified in Paragraph 28;
- vi. failing to report any DWO to EPA within 24 hours as required by Paragraph 30a and Appendix N (EPA Reporting Form), or a similar form as approved by EPA;
- vii. failing to respond to SSO, CSO or Unauthorized Release that occur in the Puerto Nuevo Sewer System in accordance with the SRCP approved by EPA and Paragraph 30b; and
- viii. failing to notify EPA when an SSO or Unauthorized Release occurs and discharges to waters of the United States as required by Paragraph 30d.

c. For each day PRASA fails to submit a Deliverable identified below, PRASA

shall be liable for stipulated penalties as follows:

<u>Period of noncompliance</u>	<u>Per day per violation</u>
Days 1 - 30	\$500
Days 31 - 60	\$1,000
Over 60 days	\$2,500

The Deliverables required to be submitted under this Decree include the following:

- i. Compliance plans and schedule for the I/I Studies identified in Paragraph 19;
- ii. Revised CMM and NMC Reports according to requirements of Paragraph 21d;
- iii. S2OMP for the Puerto Nuevo RWWTP Sewer System according to requirements of Section IX (Sewer System Operation and Maintenance Program and Condition Assessment Program with Respect to the Puerto Nuevo Regional Wastewater Treatment Plant Sewer System) and Appendix G;
- iv. Submission of any necessary revisions to S2OMP as required by Paragraph 22 of this Decree;



- v. S2OMP Annual Report as required by Paragraph 22b;
- vi. Schedule to complete the Sewer System Reconnaissance and Sewer Cleaning of the remaining Puerto Nuevo RWWTP Sewer System as required by Paragraph 26;
- vii. Revised FOG Control Program in accordance with requirements of Paragraph 29 and Appendix M;
- viii. Plan and proposed schedule to undertake Condition Assessment of the Puerto Nuevo RWWTP Sewer System as required by Paragraph 31;
- ix. Condition Assessment Report as required by Paragraph 31;
- x. Barriada Figueroa Sewer Investigation and Mapping Report as required by Paragraph 34a;
- xi. Engineering Design Project Report for the Barriada Figueroa area as required by Paragraph 34b;
- xii. Electronic Maps of Puerto Nuevo RWWTP Sewer System according to requirements of Paragraph 35;
- xiii. Prioritization Report as required by Paragraphs 42-43;
- xiv. Financial Reports as required by Paragraph 45;
- xv. Corrosion Control Program as required by Paragraph 54 and Appendix V; and
- xvi. Training Program for Operators as required by Paragraph 56.

d. For each interim effluent limitation exceeded (except for Copper, Lead, Undissociated H<sub>2</sub>S, Mercury, Total Residual Chlorine and Cyanide) PRASA shall pay stipulated penalties automatically to EPA without demand as follows:

If a violation of a parameter occurs in one month, but that same parameter is not violated in the following month: \$0

If a violation of a parameter occurs in one month, and that same parameter is violated in the following month:

<u>Percent above limit</u>	<u>Per day per violation</u>
Up to 20%	\$100
21-60%	\$1,000
Above 60%	\$2,000

However, if a violation of the same parameter occurs five times or more in one calendar year, for the fifth and subsequent violations in that calendar year:

<u>Percent above limit</u>	<u>Per day per violation</u>
Up to 20%	\$200
21-60%	\$2,000
Above 60%	\$4,000

For each interim effluent limitation exceeded for Copper, Lead, Undissociated H<sub>2</sub>S, Mercury, Total Residual Chlorine and Cyanide, PRASA shall pay stipulated penalties to EPA on demand as follows:

If a violation of a parameter occurs in one month, but that same parameter is not violated in the following month: \$0

If a violation of a parameter occurs in one month, and that same parameter is violated in the following month:

<u>Percent above limit</u>	<u>Per day per violation</u>
Up to 20%	\$100
21-60%	\$1,000
Above 60%	\$2,000

However, if a violation of the same parameter occurs five times or more in one calendar year, for the fifth and subsequent violations in that calendar year:

<u>Percent above limit</u>	<u>Per day per violation</u>
Up to 20%	\$200
21-60%	\$2,000
Above 60%	\$4,000

PRASA shall summarize and assess the stipulated penalty amounts for these interim effluent limitation stipulated penalties in the applicable Bi-annual Report covering the last six months of the calendar year. PRASA shall pay to EPA the amounts of stipulated penalties associated with these violations that are due automatically and without demand no later than thirty (30) days after the corresponding Bi-annual Report is submitted to EPA.

e. For each final NPDES Permit effluent limitation exceeded (except for Copper, Lead, Undissociated H<sub>2</sub>S, Mercury, Total Residual Chlorine and Cyanide) PRASA shall pay stipulated penalties automatically to EPA without demand as follows:

If a violation of a parameter occurs in one month, but that same parameter is not violated in the following month: \$0

If a violation of a parameter occurs in one month, and that same parameter is violated in the following month:

<u>Percent above limit</u>	<u>Per day per violation</u>
Up to 20%	\$100
21-60%	\$1,000
Above 60%	\$2,000

However, if a violation of the same parameter occurs five times or more in one calendar year, for the fifth and subsequent violations in that calendar year:

<u>Percent above limit</u>	<u>Per day per violation</u>
Up to 20%	\$200
21-60%	\$2,000
Above 60%	\$4,000

For each final effluent limitation exceeded for Copper, Lead, Undissociated H<sub>2</sub>S, Mercury, Total Residual Chlorine and Cyanide, PRASA shall pay stipulated penalties to EPA on demand as follows:

If a violation of a parameter occurs in one month, but that same parameter is not violated in the following month: \$0

If a violation of a parameter occurs in one month, and that same parameter is violated in the following month:

<u>Percent above limit</u>	<u>Per day per violation</u>
Up to 20%	\$100
21-60%	\$1,000
Above 60%	\$2,000

However, if a violation of the same parameter occurs five times or more in one calendar year, for the fifth and subsequent violations in that calendar year:

<u>Percent above limit</u>	<u>Per day per violation</u>
Up to 20%	\$200
21-60%	\$2,000
Above 60%	\$4,000

PRASA shall summarize and assess the stipulated penalty amounts for these interim effluent limitation stipulated penalties in the applicable Bi-annual Report covering the last six months of the calendar year. PRASA shall pay to EPA the amounts of stipulated penalties associated with these violations that are due automatically and without demand no later than (30) days after the corresponding Bi-annual Report is submitted to EPA.

f. For each effluent limitation (interim and/or final) established for each Plant that PRASA fails to report, or fails to report with a numeric value, to EPA in the monthly Discharge Monitoring Reports, PRASA shall pay automatically without demand stipulated penalties in the amount of \$150 per parameter for every result not reported in that reporting period. For those monthly average parameters that are not reported in the monthly Discharge Monitoring Report, PRASA shall pay automatically without demand a stipulated penalty in the amount of \$500 per parameter. PRASA shall not have to pay stipulated penalties if it submits an amended Discharge Monitoring Report for that reporting period that supplies the missing data to cure the violation(s) under this subparagraph no later than the due date of the Discharge Monitoring Report for the next reporting period. Any re-analysis done on samples taken must be done on samples taken in the month for which the Discharge Monitoring Report was required. If the entire Discharge Monitoring Report is submitted late, PRASA shall pay stipulated penalties to EPA automatically and without demand in the amount of \$100 per day for the first ten (10) days and \$500 per day thereafter.

PRASA shall summarize and assess the stipulated penalties for these effluent limitation violations in the applicable Bi-annual Reports covering the last six months of the Calendar year. PRASA shall pay to EPA the amounts of stipulated penalties associated with these

violations no later than thirty (30) days after the corresponding Bi-annual Reports submitted to EPA.

g. For each parameter that PRASA fails to monitor for the existing STSs that do not have effective NPDES Permits as required by Paragraph 66, PRASA shall pay stipulated penalties automatically in the amount of \$500 per parameter. PRASA shall summarize and assess the stipulated penalties for failing to monitor STSs in the applicable Bi-annual Reports covering the last six months of the Calendar year. PRASA shall pay to EPA the amounts of stipulated penalties associated with these violations no later than thirty (30) days after the Bi-annual Reports submitted to EPA.

h. For each unanticipated sanitary sewer overflow (as defined in the applicable NPDES Permit) from a Pump Station, PRASA shall pay stipulated penalties automatically and without demand as follows:

<u>Period of Non-compliance</u>	<u>Per day per Violation</u>
Days 1 -3	\$100
Days 4 – 10	\$500
Over 10 Days	\$1,000

PRASA shall summarize and assess the stipulated penalties for unanticipated sanitary sewer overflows at the Pump Stations in the applicable Bi-annual Reports covering the last six months of the Calendar year. PRASA shall pay to EPA the amounts of stipulated penalties associated with these violations automatically and without demand no later than thirty (30) days after the Bi-annual Reports submitted to EPA.

i. For each day PRASA fails to submit Bi-annual Reports, PRASA shall be liable for stipulated penalties from EPA stipulated penalties as follows:

<u>Period of noncompliance</u>	<u>Per day per violation</u>
Days 1 - 14	\$500
Days 15 - 30	\$1,000

Over 31 days                      \$2,500

If EPA notifies PRASA that the Bi-annual Report is missing any required information, PRASA shall supply the requested information within seven (7) days or the report shall be deemed not submitted and PRASA shall pay stipulated penalties under this sub-paragraph until it supplies the requested information and the Bi-annual Report is deemed complete.

j. If EPA finds that the IMP is not being implemented in practice according to the requirements of Appendix U (Minimum Requirements of the Integrated Maintenance Program), EPA shall send notice to PRASA identifying the problems and areas of non-compliance. PRASA has sixty (60) days from date of notice by EPA to cure the deficiencies at each applicable Facility as set forth in EPA's notice. If PRASA fails to cure deficiencies set forth in EPA's notice within sixty (60) days, PRASA shall pay \$1,000 per deficiency not properly addressed.

k. For each violation of the following requirements, PRASA shall pay stipulated penalties to EPA as follows:

- i. Payment of stipulated penalties to EPA automatically, and without demand, of \$500 per day per location for failing to undertake the actions required at each location as required by Appendix R (Areas of Concern); and
- ii. Payment of stipulated penalties to EPA on demand of \$100 per day per location for failing to submit notification to EPA to Sharepoint Site when the action is completed in each location as required by Section XII (Areas of Concern).

PRASA shall summarize and assess the stipulated penalties referenced above in sub-paragraph k (i) if they fail to undertake the actions required in Appendix R, or actions required in any newly identified Areas of Concern as provided for in Section XII (Areas of Concern).

In addition to paying stipulated penalties as provided for in this Decree, PRASA shall convene a community meeting in the affected area where continuous overflows are occurring to inform the affected residents of the following: conditions that are causing such continuous overflows, actions PRASA is taking to address those overflows, and the expected date to eliminate the overflows. Such community meetings shall be convened within two (2) weeks of PRASA's knowledge of the continuous overflows. For purposes of this sub-paragraph, continuous overflows are defined as those discharges that occur in two consecutive weeks.

1. If EPA finds that the PCS at each STS and WWTP is not being implemented in practice according to the requirements of Section XVII (Continued Implementation of a Process Control System), EPA shall send notice to PRASA identifying problems and areas of non-compliance. PRASA has sixty (60) days from date of notice by EPA to cure the deficiencies at each applicable STS and WWTP as set forth in EPA's notice. If PRASA fails to cure deficiencies set forth in EPA's notice within sixty (60) days, PRASA shall pay \$1,000 per deficiency not properly addressed.

m. If PRASA fails to perform the training as required by Paragraphs 56 and 57 PRASA shall pay a stipulated penalty of \$100 for every employee not trained by the requirements set forth in this Decree.

81. Any stipulated penalty based upon a violation of a Consent Decree provision shall be paid to the United States.

82. Where PRASA is required to summarize and assess stipulated penalties due automatically, without demand by EPA, under this Section, PRASA shall pay those assessed penalties no later than thirty (30) days after the appropriate Bi-annual Report. PRASA shall continue to calculate and report all the stipulated penalty amounts incurred in the appropriate

Bi-annual Report as required by this Section. PRASA shall clearly explain in the Bi-annual Report the period of non-compliance event(s), referencing the provision of the Consent Decree violated, and the amount of Stipulated Penalty due (including how the amount was calculated for each violation of the Decree).

83. For penalties demanded pursuant to subparagraphs a – e and i – m of Paragraph 80, payment shall be made within sixty (60) days of receiving EPA’s written demand, which shall detail the noncompliance event indicating the paragraph of the Decree violated and the period of noncompliance event(s) including the duration of the violation. The letter accompanying the payment shall include the following information: the non-compliance event indicating the paragraph of the Decree violated, the period of non-compliance event(s) including the duration of the violation, and the amount owed to the United States for each non-compliance event.

84. All stipulated penalties begin to accrue on the day that complete performance is due or a violation occurs, and continue to accrue through, and including, the day on which such violation or other noncompliance is remedied. Nothing herein shall preclude the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Decree.

85. In the event that a stipulated penalty is not paid when due or within 60 days of demand made by EPA, the penalty shall be payable with interest from the original due date to the date of payment, at the statutory judgment rate set forth at 28 U.S.C. 1961, and plus the amount of the United States reasonable costs, attorneys fees or other expenses incurred in seeking payment of the civil or stipulated penalty.

86. Stipulated penalties paid to the United States under this Section shall be paid by FedWire Electronic Funds Transfer (EFT) to the Department of Justice account, in accordance



with instructions provided to PRASA from the Financial Litigation Unit (FLU) of the US Attorneys Office of the District of Puerto Rico after the Date of Entry. The payment instructions will include a Consolidated Debt Collection System (CDCS) Number which PRASA shall include to identify all payments required to be made in accordance with this Decree. PRASA shall identify to the FLU the individual at PRASA to receive payment instructions.

87. Nothing in this Section shall be construed as prohibiting, altering, or in any way limiting the rights of the United States to seek additional remedies or sanctions, pursuant to other provisions of this Consent Decree or of any applicable statutes and regulations, including seeking injunctive or other relief for PRASA's failure to implement the injunctive relief provisions as agreed to in this Consent Decree.

88. Upon the Date of Entry, the stipulated penalty provisions of this Consent Decree (Paragraphs 80-89) shall be retroactively enforceable with regard to any and all violations of this Decree that have occurred from the Date of Lodging through the Date of Entry. Provided that stipulated penalties that may have accrued prior to the Date of Entry may not be collected under and until this Consent Decree is entered by the Court.

89. EPA may in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due under the Consent Decree.

**XXIII. REMOVAL OF WWTPS and STSs FROM DESIGNATED STIPULATED PENALTY PROVISIONS**

90. EPA and PRASA agree that the STSs and WWTPs subject to this Consent Decree will be eligible to be removed from certain stipulated penalty provisions of the Consent Decree as set forth below.

91. For a STS to be eligible for removal from the designated stipulated penalty provisions, PRASA must demonstrate that such STS is in compliance with the following requirements of this Consent Decree:

- a. Payment in full of any and all penalties due under this Consent Decree;
- b. Compliance with all final permit effluent limitations and Permit conditions, as evidenced in the DMRs, for six (6) consecutive months preceding the date on which removal from designated stipulated penalties is sought; and
- c. All remedial actions required under Sections V (Remedial Measures at STSs) and VI (New STS Plants and Solids Handling) of this Consent Decree have been completed.

92. For a WWTP or STS to be eligible for removal from the designated stipulated penalty provisions, PRASA must demonstrate that each WWTP or STS is in compliance with the following requirements of this Consent Decree:

- a. Payment in full of any and all penalties due under this Consent Decree;
- b. Compliance with all final permit effluent limitations and Permit conditions, as evidenced in the DMRs, for six (6) consecutive months preceding the date on which removal from designated stipulated penalties is sought;
- c. All remedial actions required under Sections V and VII and Appendices H-J have been completed; and
- d. An EPA-approved IMP, SRCP and PCS have been implemented at that particular Facility for at least eighteen (18) months without any notices of failure to comply the IMP, SRCP or PCS having been issued by EPA for six (6) consecutive months preceding the date on which removal from designated stipulated penalties is sought.

93. When the above conditions are met, PRASA will certify in writing that it has complied with all applicable requirements of this Section with regard to the STS or WWTP and request to EPA that the STS or WWTP be removed from the designated stipulated penalty provisions of the Consent Decree.

94. EPA will review all relevant compliance information as to that STS or WWTP, including, but not limited to, DMRs and Bi-Annual Progress Reports, to determine whether that Plant has met the requirements of this Section for removal from designated stipulated penalties. EPA reserves the right to inspect any STS or WWTP prior to its removal from the designated stipulated penalty provisions of this Consent Decree.

95. EPA shall inform PRASA in writing of its determination regarding whether the STS or WWTP covered by this Consent Decree meets the requirements of this Section. Designated stipulated penalties shall be tolled during this review period. If EPA determines that the requirements of this Section have not been met as to that Plant, the designated stipulated penalties, if any, shall be retroactively imposed and shall be paid in accordance with the provisions of Section XXII (Penalties) of this Consent Decree. If EPA determines that the requirements of this Section have been met as to that Plant, it shall confirm this determination to PRASA in writing.

96. For purposes of this Section and Section XXIV (Reincorporation) below, designated stipulated penalties include subparagraphs d and e of Paragraph 80 Section XXII (Penalties).

97. Nothing herein shall relieve PRASA from complying with all other provisions of this Consent Decree with respect to any WTPs or WWTPs that have been removed from the designated stipulated penalties provisions.

**XXIV. REINCORPORATION OF WTPS OR WWTPS INTO DESIGNATED STIPULATED PENALTY PROVISIONS**

98. A STS or WWTP removed from the designated stipulated penalties provisions of this Consent Decree shall be reincorporated in the designated stipulated penalties provisions if the Facility is in noncompliance with a NPDES Permit final effluent limit by the percentage identified below for a period of three consecutive months, based on the following criteria:

Conventional Pollutants (40% exceedance of limit)

Biochemical Oxygen Demand  
Total Dissolved Solids  
Flow  
Inorganic Phosphorus Compounds  
Fecal Coliform  
Enterococcus

Toxic Pollutants (20% exceedance of limit)

Metals  
Total Residual Chlorine

99. In the event that any parameter listed above is in noncompliance for three consecutive months (three DMR reporting cycles), PRASA shall notify EPA in the next Bi-Annual Report submitted that the STS or WWTP satisfies the reincorporation criteria.

100. Upon receipt of notice from PRASA in the Bi-annual Report, that such STS or WWTP is in noncompliance with the criteria identified in this Section or when EPA determines that such conditions as set forth in Paragraph 98 have been met and so notifies PRASA, such STS or WWTP shall be deemed reincorporated into the designated stipulated penalties provisions without further action by EPA. For purposes of this Paragraph, the

assessment of stipulated penalties shall begin to accrue from the day the STS or WWTP satisfies the conditions as set forth in Paragraph 98.

101. Any designated stipulated penalties accruing subsequent to the three month noncompliance period shall be double the amounts set forth in Section XXII (Penalties) of this Consent Decree. Non-designated stipulated penalties shall remain at the original amounts as set forth in that Section. All stipulated penalties shall be due and payable in the manner prescribed in Section XXII (Penalties).

**XXV. BI-ANNUAL REPORTS**

102. Beginning May 1, 2016, for the period covering September 1, 2015 through February 29, 2016, and every six (6) months thereafter throughout the effective period of this Consent Decree, PRASA shall submit to EPA a written report on a bi-annual basis detailing the current status and/or progress of the actions taken in compliance with this Consent Decree. The Bi-annual Progress Report shall report on PRASA's activities with regard to Section V (Remedial Measures at WTPs) through XXI (Review and Approval Procedures) of this Consent Decree, along with all pertinent Deliverables required to be submitted under this Consent Decree, and at a minimum shall set forth:

a. the status of remedial measures being undertaken by PRASA relating to completion of Work required under the compliance schedules specified in this Consent Decree, including but not limited to the expected date for the Substantial Completion of any of the remedial actions Appendix H (Base List for Remedial Measures to Address Washwater Discharges at WTPs), Appendix I (Capital Projects subject to Prioritization), and Appendix J (Base List of Remedial Measures for WWTPs) and identification of those requirements which have been accomplished since the previous report, including the dates of Substantial

Completion of any of the remedial/measures identified in Appendix H (Base List for Remedial Measures to Address Washwater Discharges at WTPs), Appendix I (Capital Projects subject to Prioritization), and Appendix J (Base List of Remedial Measures for WWTPs);

b. the status of remedial measures being undertaken by PRASA related to Work being performed under this Consent Decree or as required by Section XI (Sewer System Evaluations and Repairs);

c. any impediments encountered by PRASA in meeting the compliance schedules under this Consent Decree, the steps that have been taken by PRASA to overcome such impediments and the steps that are to be taken by PRASA to overcome such impediments, including the anticipated dates by which such steps will be taken;

d. locations of any interconnections found as required by Paragraph 23;

e. locations of any SSOs, DWOs and/or unauthorized releases as required by Paragraph 30d;

f. a list of all Facilities that have been shut down or otherwise taken off-line or consolidated with other Facilities, and all new WTPs or WWTPs that have commenced operation or existing WTPs or WWTPs that have been returned to service during the preceding reporting period, such list to include the name and address of each such Facility and identification of the NPDES or other Permit authorizing its operation;

g. a description of the requirements of this Consent Decree subject to stipulated penalties which were not complied with, including the dates of each individual non-compliance event and the individual computation made in determining the amount of stipulated penalties due;

h. as to effluent limitation violations, stipulated penalty calculations shall be reported for each individual Plant;

i. any change in PRASA personnel at the Executive President and Regional Director levels;

j. results of interim weekly and monthly limit monitoring as required by Section XIX (Monitoring, Records, and Reporting Requirements of Unpermitted STS);

k. certification regarding training requirements as required by Section XVI (Training and Additional Requirements for Operators) and Paragraph 56;

l. notification of commencement of construction of any STS at any PRASA WTP as required by Paragraph 14;

m. results of any Prioritization System analysis conducted by PRASA during the relevant time period or the reasons for not running a Prioritization Report as required by Paragraph 40;

n. Status of the S2OMP implementation activities, and specific summary of Puerto Nuevo RWWTP Sewer System cleaning and inspections completed for the last six (6) months, and projected future cleaning and inspections for this Sewer System; and

o. Status of the implementation of the Caño Martín Peña Projects as required by Section X (Caño Martín Peña Projects).

103. PRASA shall annually report on the anniversary of the Date of Lodging on its current financial situation including but not limited to its debt service coverage ratio, senior lien coverage ratio, liquidity, any approved future rate increases, status of debt to plant ratio, key financial ratios monitored internally and for lender(s), current bond ratio and current bond ratings, and number of customers by service pipe. PRASA shall also submit its most recent

annual financial report, bond prospectus issued during prior year and any rating agency report received during the previous year. In addition to financial reporting requirements, PRASA shall provide notice of any change in bond rating status within ten (10) days of any such change. PRASA shall submit the Bi-annual Progress Reports within sixty (60) days after the end of the six (6) month period being reported. The above reporting requirements do not relieve PRASA of the obligation to submit reports or information required by the CWA, regulations promulgated thereunder, the NPDES Permits, or any other permit or local or federal law.

104. PRASA may elect to submit separate Bi-annual Reports from its five regional offices, provided (i) the same information described in this Section is included in such reports; (ii) the Responsible Official and Regional Director(s) of PRASA have certified in writing that each has reviewed each report prior to submission to EPA; and (iii) PRASA has complied with 40 C.F.R. § 122.22 with respect to authorizing the appropriate Regional Directors as signatories. EPA may, in its discretion, and upon thirty (30) days notice in writing to PRASA, require that PRASA submit only one Bi-annual Report per submittal date. All Bi-annual Reports and other submissions required pursuant to this Consent Decree shall be in English and signed by a Responsible Official, which shall include Regional Directors if PRASA elects to submit regional reports. The Bi-annual Reports and all other submissions shall contain the following certification:

I certify that based on my inquiry of the person or persons directly responsible for gathering the information, the information contained in or accompanying this submission is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, or for failure to submit information



required to be submitted under this Consent Decree, including the possibility of fine and imprisonment for knowing violations.

**XXVI. TRIANNUAL PROGRESS MEETINGS**

105. Representatives of EPA and PRASA shall convene informally at least on a triannual basis (three times per year) pursuant to a mutually agreed-upon schedule to discuss PRASA's ongoing progress under the Consent Decree. The meeting should cover at least the following subjects:

a. Progress in the implementation of the actions required by this Consent Decree including but not limited to all the remedial actions listed in Appendices H-J and the S2OMP cleaning and Sewer System Reconnaissance efforts;

b. Potential problems that may adversely affect progress in implementing the actions required by this Consent Decree;

c. Measures that PRASA intends to take to correct problems and deficiencies encountered by PRASA or found by EPA in its inspections of any Facility and Sewer System covered by this Consent Decree; and Status of compliance with effluent limits; and

d. Measures that PRASA is taking to dedicate more resources to the S2OMP activities under this Decree; and

e. Cleaning and re-inspection schedules for the Puerto Nuevo RWWTP Sewer System.

106. If, as a result of discussions at the Triannual Progress Meetings, EPA and PRASA agree on actions to be taken and a schedule for such action that are not otherwise provided for in this Consent Decree, including any actions resulting from PRASA's Prioritization System, the United States and PRASA shall, after consultation with counsel,

follow the procedure set forth in Section XXXVII (Modification). The EPA and PRASA may agree to meet on a bi-annual basis, rather than a triannual basis two (2) years after the Date of Entry. Such agreement shall be memorialized in writing by both the United States and PRASA, and shall not be considered a material modification for purposes of Section XXXVII (Modifications) of this Decree.

**XXVII. FORCE MAJEURE**

107. PRASA's obligation to comply with one or more of the provisions of this Consent Decree shall be deferred or, in the sole discretion of EPA, excused, to the extent that the delay in compliance or the non-compliance is caused by a force majeure event. Force majeure, for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of PRASA that delays or prevents the performance of any obligation or causes a non-compliance under this Consent Decree despite PRASA's best efforts to fulfill the obligation. The requirement that PRASA exercise best efforts to fulfill the obligation includes using best efforts to anticipate any potential force majeure and best efforts to address the effects of any potential force majeure (i) as it is occurring; and (ii) following the potential force majeure, such that the delay is minimized to the greatest extent possible. Force majeure shall not include any delay due to unanticipated or increased costs of achieving and maintaining compliance with any provision of this Consent Decree or PRASA's financial inability to implement any provision of this Consent Decree. PRASA's failure to obtain any necessary permit or approval shall not be deemed a force majeure unless PRASA demonstrates that it exercised due diligence in promptly pursuing such permit application or approval. The United States and PRASA agree that, depending upon the circumstances related to an event and PRASA's response to such circumstances, the kinds of events listed below are among those

that could qualify as force majeure events within the meaning of this Section: fire, hurricane, flood, riot, terrorism, or other circumstances beyond the control of, and without the fault of PRASA, or any entity controlled by PRASA, including PRASA's consultants and contractors.

108. If any alleged force majeure event occurs or has occurred that may delay the performance or cause a non-compliance of any obligation under this Consent Decree, PRASA shall notify EPA no later than five (5) working days after PRASA first knew or should have known that the event might cause a delay. Within ten (10) days thereafter, PRASA shall provide in writing to EPA an explanation and description of the reasons for the delay or non-compliance; the anticipated duration of the delay or non-compliance; all actions taken or to be taken to prevent or minimize the delay or non-compliance; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or non-compliance or the effect of the delay or non-compliance; and PRASA's reason(s) for attributing such delay to a force majeure, if PRASA intends to assert such a claim. Any written claim of a force majeure event shall be detailed and Facility and Sewer System specific. PRASA shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure.

109. Failure to comply with the above procedures regarding notification and reporting shall preclude PRASA from asserting any claim of force majeure for that event for the period of time of such failure to comply, unless such failure to comply with the foregoing procedures regarding notification is itself attributable to a force majeure event. PRASA further agrees that, notwithstanding giving notice to EPA within five (5) working days, any unreasonable delay in notifying EPA of an alleged force majeure event may hinder or preclude

EPA from substantiating an assertion by PRASA that the delay in compliance or the non-compliance in question is attributable to a force majeure event.

110. If EPA agrees that the delay or non-compliance or anticipated delay or non-compliance is attributable to a force majeure, the time for implementation of the applicable portions of this Consent Decree that are affected by the force majeure will be extended by EPA for a period to compensate for the delay resulting from such event, and stipulated penalties shall not accrue for such period. An extension of time for performance of the obligations affected by the force majeure shall not, of itself, extend the time for performance of any other obligation or toll the accrual of stipulated penalties for failure to perform such obligation. If EPA does not agree that the delay or non-compliance or anticipated delay or non-compliance has been or will be caused by a force majeure, EPA will notify PRASA in writing of its decision. If EPA agrees that the delay is attributable to a force majeure, EPA will notify PRASA in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure.

111. If PRASA elects to invoke the dispute resolution procedures set forth in Section XXXI (Dispute Resolution), with regard to a force majeure determination, it shall do so no later than thirty (30) days after receipt of EPA's written notice of its decision. In any such proceeding, PRASA shall have the burden of demonstrating by a preponderance of the evidence that the delay or non-compliance or anticipated delay or non-compliance has been or will be caused by a force majeure, that the duration of the delay or non-compliance or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid or mitigate the effects of the delay, and that PRASA complied with the requirements of this Section of the Consent Decree. If PRASA carries the burden, the delay at

issue shall be deemed not to be a violation by PRASA of the affected obligation of this Consent Decree identified to EPA and to the Court.

**XXVIII. NOTICES**

112. Whenever under the terms of this Consent Decree notice is to be given, or a report or other document is to be forwarded by one party to another, it shall be directed to the following addresses unless otherwise provided in this Consent Decree or unless the sending party has been advised by the receiving party that such notice and reports should be forwarded to a different individual or address. Any such materials shall be in English and shall include a reference to the name, caption and number of this action.

As to the United States:

Director, Caribbean Environmental Protection Division  
United States Environmental Protection Agency  
City View Plaza Suite 7000  
#48, State Road No. 165, Km. 1.2  
Guaynabo, Puerto Rico 00968-8069

Chief, Water and General Law Branch  
Office of Regional Counsel  
United States Environmental Protection Agency  
Region II  
290 Broadway, 16<sup>th</sup> Fl.  
New York, New York 10007

By mail:

Chief, Environmental Enforcement Section  
Environment & Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611, Ben Franklin Station.  
Washington, D.C. 20044-7611

or By courier or express mail:

Chief, Environmental Enforcement Section  
Environment & Natural Resources Division  
U.S. Department of Justice  
601 D Street, N.W., Room 2121  
Washington, D.C. 20005

For judicial filings only:

United States Attorney  
District of Puerto Rico  
Federal Office Building, Rm. 101  
Carlos E. Chardón Avenue  
San Juan, Puerto Rico 00918

As to PRASA:

By mail:

Executive President  
Office of General Counsel  
Puerto Rico Aqueduct & Sewer Authority  
P.O. Box 7066  
San Juan, Puerto Rico 00916-7066

General Counsel  
Office of General Counsel  
Puerto Rico Aqueduct & Sewer Authority  
P.O. Box 7066  
San Juan, Puerto Rico 00916-7066

Executive Director, Compliance and  
Quality Control  
Puerto Rico Aqueduct & Sewer Authority  
Compliance and Quality Control Office  
P.O. Box 7066  
San Juan, Puerto Rico 00916-7066

or By courier or express mail:

Executive President  
Office of General Counsel  
Puerto Rico Aqueduct & Sewer Authority  
Sergio Cuevas Bustamante Building  
604 Avenida Barbosa  
San Juan, Puerto Rico 00917

General Counsel  
Office of General Counsel  
Puerto Rico Aqueduct & Sewer Authority  
Sergio Cuevas Bustamante Building  
604 Avenida Barbosa  
San Juan, Puerto Rico 00917

Executive Director, Compliance and  
Quality Control  
Puerto Rico Aqueduct & Sewer Authority  
Compliance and Quality Control Office  
Sergio Cuevas Bustamante Building  
604 Avenida Barbosa  
San Juan, Puerto Rico 00917

113. Delivery shall be considered complete upon deposit of the material at issue in the express mail, express courier service, or certified mail, or as otherwise specifically provided herein.

114. Documents required to be submitted under the terms of this Consent Decree may be submitted electronically, provided a paper copy is timely submitted to the Director of the Caribbean Environmental Protection Division in Puerto Rico.

**XXIX. ACCESS TO THE FACILITIES**

115. Nothing in this Consent Decree in any way limits any right of entry or access to PRASA facilities available to EPA pursuant to applicable federal or Commonwealth laws, regulations or permits.

**XXX. RECORD RETENTION**

116. Unless otherwise specified in this Consent Decree, PRASA shall preserve an original or a copy of all records, logs, and documents required to be kept under the CWA, any applicable regulations promulgated thereunder, and pursuant to the IMPs for each individual Facility and Sewer System covered by this Consent Decree for at least two (2) years after the termination of this Consent Decree, or as long as is required under the CWA, regulation, or Permit, if longer. Drafts of documents for which a final version has been submitted to EPA pursuant to this Consent Decree need not be retained. Upon request by EPA, PRASA shall provide copies to EPA of any such records, logs, and documents during the periods PRASA is required to preserve an original or copy of such records, logs, and documents. Provided, however, that PRASA may eliminate documents after five (5) years upon written notice to EPA listing the documents PRASA plans to destroy and EPA's written approval. If EPA does not respond in writing within ninety (90) days of receiving such notice, PRASA may destroy such documents.

117. For purposes of this Section and of Section XXII (Penalties), PRASA shall be required to preserve at least the following records, logs and documents:

- a. Facility log books;
- b. The 24 hour and five day notices/notification forms which include reports of SSOs, DWOs, and or Unauthorized Releases;
- c. Computerized or other written maintenance management system files in which routine facility maintenance information is loaded or otherwise recorded, including job orders for corrective or preventive maintenance for each facility;
- d. Inspection punch list or report performed at each Facility and Sewer System, covered by this Consent Decree, compiled daily, weekly, monthly, semi-annually or annually, as applicable;
- e. Police reports documenting employee security and/or vandalism-related incidents;
- f. Process Control related documents at each WWTP and STS; and
- g. CSO related documents for the Puerto Nuevo collection system.

**XXXI. DISPUTE RESOLUTION**

118. The United States and PRASA shall make reasonable efforts informally and in good faith to resolve all disputes or differences of opinion regarding the meaning or implementation of this Consent Decree. In the event that the United States and PRASA cannot resolve any such dispute, then the interpretation advanced by EPA shall be considered binding unless PRASA invokes the dispute resolution provisions of this Section.

119. If, in the opinion of any party, there is a dispute with respect to the meaning or implementation of any provision of this Consent Decree, that Party shall send a written notice to the other Party which outlines the nature of the dispute and requests informal negotiations to



resolve the dispute. Such period of informal negotiations shall not extend beyond forty-five (45) days from the date when the notice was sent unless EPA and PRASA agree otherwise.

120. If informal negotiations are unsuccessful, following the close of negotiations, EPA shall provide in writing to PRASA a statement of position regarding the subject of the dispute within forty-five (45) days following the close of negotiations. EPA's statement of position may include or reference, but not necessarily be limited to, any factual data, analysis, or opinion supporting that position and all supporting documents relied upon by EPA. If EPA does not issue its statement of position within the prescribed period, PRASA may apply for an order of the Court to require EPA to provide its position in writing.

121. An administrative record of the dispute shall be maintained by EPA and shall contain all statements of position, including supporting documentation, submitted by either Party, and shall contain EPA's final statement of position. EPA's position shall control unless PRASA files with the Court a petition which shall describe the nature of the dispute and include a proposal for its resolution. Petitions by PRASA must be filed no more than twenty (20) days after receipt by PRASA of EPA's final position. The United States shall then have twenty (20) days to respond to any such petitions. In any such dispute, and subject to the provisions of Section XXVII (Force Majeure), PRASA shall have the burden of proving that EPA's position is arbitrary and capricious or otherwise not in accordance with law. Judicial review of EPA's position shall be based on the administrative record.

122. Invocation of the dispute resolution procedures shall not toll the accrual of stipulated penalties or any deadlines affected by the dispute, unless the United States and PRASA agree in writing or the Court issues an order otherwise. In any event, payment of

any accrued stipulated penalties shall be stayed pending the outcome of the dispute resolution process.

**XXXII. COMPLIANCE WITH APPLICABLE LAWS**

123. This Consent Decree in no way relieves PRASA of its responsibility to comply with all applicable federal, Commonwealth and local laws, regulations, and permits, and compliance with this Consent Decree shall not constitute a defense to any action pursuant to said laws, regulations, or permits, except as otherwise provided in this Consent Decree or in the CWA. PRASA shall be responsible for obtaining all Commonwealth or local permits which are necessary for the performance of any obligations imposed in this Consent Decree. This Consent Decree shall not be construed as a determination of any issue related to any federal, Commonwealth, or local permit, nor shall it be construed to be an NPDES Permit or a modification of any NPDES Permit or other permit.

124. Nothing in this Consent Decree relieves PRASA from any requirements imposed on it relating to the CWA, SDWA, laws of the Commonwealth of Puerto Rico, or any orders or Permits issued pursuant to the foregoing, with the exception of the Prior Consent Decree and except as otherwise provided in this Consent Decree or in the CWA.

125. In the Triannual Meetings, the EPA and PRASA agree to discuss significant changes in law and/or regulations and whether such changes may require modification of this Consent Decree pursuant to Section XXXVII (Modifications).

**XXXIII. EFFECT OF SETTLEMENT**

126. Effective upon the Date of Entry of this Consent Decree, and in consideration of the injunctive relief under this Consent Decree, except as expressly set forth in Section XXXIV (Reservation of Rights), the United States covenants not to bring any

administrative or judicial action for violations of Sections 301, 402 and 504 of the CWA alleged in the Complaint filed in this matter that occurred up to and including the Date of Lodging. Entry of this Consent Decree by the Court shall resolve the United States' civil claims, except as expressly set forth in Section XXXIV (Reservation of Rights) below, for violations of the above-referenced statutory provisions as alleged in the Complaint up to and including the Date of Lodging of the Consent Decree.

127. This Consent Decree supersedes the Prior Consent Decrees, as defined in this Consent Decree, entered into between the United States and PRASA. This Consent Decree shall not be construed to prevent or limit the rights of the United States to obtain penalties or injunctive relief under the CWA, regulations promulgated thereunder, or Permit conditions, except as expressly specified herein.

**XXXIV. RESERVATION OF RIGHTS**

128. Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, all rights against PRASA with respect to all matters other than those alleged in its Complaint, including but not limited to the following:

- a. Claims based on a failure by PRASA to satisfy a requirement of this Consent Decree;
- b. Claims for civil and stipulated penalties, if any, under the terms of this Consent Decree;
- c. Any criminal liability;
- d. With respect to CWA violations that PRASA is required by statute, regulation or permit to report to EPA, claims based on PRASA's failure to report such violations that

otherwise would have been included within the scope of the allegations in the Complaint; and

e. Actions to enforce any previous Orders of the Court, any Consent Decree between the United States and PRASA, and any administrative order issued by EPA to PRASA not expressly superseded by this Consent Decree.

129. Except as provided in Section XXXIII (Effect of Settlement), the entry of this Consent Decree shall not limit or otherwise preclude the United States from taking additional criminal or civil enforcement action with regard to PRASA's Facilities, including all appurtenances thereto, pursuant to any federal or Commonwealth law, regulation or Permitting condition. EPA reserves the right to order or to require PRASA to take such other corrective action or response measures as EPA deems necessary to protect human health or the environment. Except as otherwise specified in this Consent Decree, PRASA reserves its right to raise any defense available to it to any such criminal, civil, or other corrective action instituted by the United States or any other party.

130. This Consent Decree does not limit or affect the rights of PRASA or the United States against any third parties not named herein, nor the rights of third parties not Parties to this Consent Decree against any other parties, except as otherwise provided in this Consent Decree. This Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Decree. The United States and PRASA recognize that this Consent Decree resolves only certain matters between PRASA and the United States and that its execution does not preclude PRASA from asserting any legal or factual position in any action brought against them by any person or entity not a Party to this Consent Decree. Entry of this Consent Decree as a final judgment shall not be considered binding on PRASA in litigation with third parties.

131. The execution of this Consent Decree in no way affects the pre-existing rights and obligations, if any, between PRASA and any prior operator of its Facilities.

**XXXV. COSTS OF SUIT**

132. The United States and PRASA shall bear their own costs of this action, including attorneys' fees, except that the United States may be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by PRASA.

**XXXVI. PUBLIC COMMENT**

133. Final approval of this Consent Decree by the United States is subject to the public notice and comment requirements of 28 C.F.R. § 50.7. The United States may withdraw or withhold its consent if the public comments establish that entry of this Consent Decree would be inappropriate, improper, inadequate or otherwise not in the public interest. After reviewing the public comments, if any, the United States shall advise PRASA by motion whether it seeks entry of this Consent Decree. Without further notice, PRASA agrees to the entry of this Consent Decree, as presented to the Court for lodging.

**XXXVII. MODIFICATIONS**

134. No material modification shall be made to this Consent Decree without written agreement of PRASA and the United States and written approval of the Court, except as otherwise provided under this Consent Decree. Any material modification to this Consent Decree shall be incorporated into this Consent Decree and shall be enforceable by the Court. Any non-material modifications agreed to by the United States and PRASA shall be deemed incorporated into this Consent Decree and shall be enforceable by the Court. Nothing in this Paragraph shall be deemed to alter the Court's power to supervise this Consent Decree.

PRASA may apply for a modification or extension of a deadline even though the basis for such modification does not satisfy the grounds for a force majeure event pursuant to Section XXVII (Force Majeure).

**XXXVIII. RETENTION OF JURISDICTION**

135. The Court shall retain jurisdiction of this matter for all purposes, including overseeing implementation of this Consent Decree, until termination of the Consent Decree.

136. The United States retains the right to enforce the terms of this Consent Decree and to take any other action authorized by federal, Commonwealth or local law to achieve or maintain compliance with this Consent Decree.

**XXXIX. EFFECTIVENESS AND TERMINATION**

137. Unless otherwise provided herein, this Consent Decree shall be effective upon the date of its entry by the Court.

138. Except for the records retention provision of this Consent Decree, this Consent Decree shall be terminated at the earlier of either: 1) the injunctive relief measures under the Decree have been satisfactorily completed (including but not limited to completion of Remedial Measures at STSs, WWTPs and Puerto Nuevo Combined Sewer System; Sewer System Evaluations; Sewer System Programs concerning the Puerto Nuevo RWWTP Sewer System; Specific Puerto Nuevo RWWTP Sewer System Remedial Actions; Puerto Nuevo RWWTP Sewer System Evaluations and Repairs; Area Of Concern Requirements; implementation of the IMP, PCS and SRCP; and Training and Additional Requirements for Operators) and stipulated penalties have been paid, or 2) fifteen years have passed from the

Date of Entry. No later than ninety (90) days prior to the fifteen year anniversary of the Date of Entry of this Decree, PRASA shall submit to EPA, a complete description of all actions required under this Decree, if there are any projects not completed by the fifteen year anniversary of the Date of Entry of this Decree. PRASA shall include with this submission the expected costs to complete the remaining actions described above.

139. EPA may, or the EPA and PRASA may jointly, move to terminate the Consent Decree at any time. If all of the remedial actions and capital improvement projects referred to in Sections V through XX (and the associated appendices) have been completed, PRASA may move the Court to terminate the Consent Decree. Regardless of whether the remedial actions and capital improvement projects referred to in Sections V through XX (and the associated appendices) have been completed, the United States reserves its right to object to termination if any Facility is not complying with its NPDES Permit.

140. Nothing herein shall relieve PRASA or any subsequent operator of PRASA's Facilities from the obligation to provide proper operation and maintenance at all Facilities as required by the CWA and regulations promulgated thereunder, and the terms and conditions of PRASA's NPDES Permits after termination of this Consent Decree.

141. The United States and PRASA may jointly move at any time after the conditions in this Section have been met to terminate this Consent Decree based on their representation that all of its requirements have been satisfied. PRASA may unilaterally move to terminate this Consent Decree if (i) it has a good faith basis to believe that the conditions of this Section have been met; and (ii) it has unsuccessfully sought EPA's concurrence that the conditions of this Section have been met. PRASA's motion to terminate this Consent Decree shall only be granted if PRASA can demonstrate on the administrative record that EPA's

failure to concur that the conditions of this Section have been met is arbitrary and capricious or otherwise not in accordance with law.

142. Nothing herein shall be construed to limit the authority of the United States to undertake any action against any person, including PRASA, to abate or correct conditions which may present an imminent and substantial endangerment to the public health, welfare, or the environment, or for any other violation of law or regulation.

So ORDERED this \_\_\_\_ day of \_\_\_\_\_, 2015.

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Honorable  
United States District Judge




THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. Puerto Rico Aqueduct and Sewer Authority, et al.*, Civil No.

FOR THE PLAINTIFF UNITED STATES OF AMERICA:

JOHN C. CRUDEN  
Assistant Attorney General  
Environment and Natural Resource Division  
U.S. Department of Justice

Dated: September 15, 2015



PATRICIA A. MCKENNA  
Senior Attorney  
Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
601 D St., N.W.  
Washington, D.C. 20004

ROSA E. RODRIGUEZ-VELEZ  
United States Attorney  
District of Puerto Rico

HECTOR E. RAMIREZ  
Assistant United States Attorney  
District of Puerto Rico  
Torre Chardon Suite 1201  
350 Carlos E. Chardón Avenue  
San Juan, Puerto Rico 00918

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. Puerto Rico Aqueduct and Sewer Authority, et al.*, Civil No.


Dated: 9/14/15



CYNTHIA GILES  
Assistant Administrator  
Office of Enforcement and Compliance Assurance  
United States Environmental Protection Agency  
William Jefferson Clinton South Building  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. Puerto Rico Aqueduct and Sewer Authority, et al.*, Civil No.

Dated: 9/15/15

  
ERIC SCHAAF  
Regional Counsel  
EPA Region II  
290 Broadway  
New York, New York

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. Puerto Rico Aqueduct and Sewer Authority, et al., Civil No.

FOR THE DEFENDANT PUERTO RICO AQUEDUCT AND SEWER AUTHORITY:

Dated: \_\_\_\_\_



ALBERTO M. LÁZARO CASTRO  
Executive President  
Puerto Rico Aqueduct & Sewer Authority  
P.O. Box 7066  
San Juan, Puerto Rico 00916

Dated: \_\_\_\_\_



FRANCISCO MARTÍNEZ CASTELLO  
Vice President of Operations  
Puerto Rico Aqueduct & Sewer Authority  
P.O. Box 7066  
San Juan, Puerto Rico 00916

Dated: \_\_\_\_\_



RAQUEL MATOS ROLÓN  
General Counsel  
JORGE MARRERO NARVÁEZ  
Assistant Legal Counsel  
Office of General Counsel  
Puerto Rico Aqueduct & Sewer Authority  
P.O. Box 7066  
San Juan, Puerto Rico 00916-7066

Dated: \_\_\_\_\_



IRMA M. LÓPEZ SANTOS  
Executive Director,  
Compliance and Quality Control Directorate  
Puerto Rico Aqueduct & Sewer Authority  
Compliance and Quality Control Office  
P.O. Box 7066

San Juan, Puerto Rico 00916-7066

Dated: \_\_\_\_\_



LYNNETTE M. RAMIREZ RIVERA  
Executive Director, Infrastructure  
Puerto Rico Aqueduct & Sewer Authority  
Infrastructure Office  
P.O. Box 7066  
San Juan, Puerto Rico 00916-7066

Dated: \_\_\_\_\_



ROBERTO W. MARTÍNEZ TOLEDO  
Executive Regional Director, Metro Region  
Puerto Rico Aqueduct & Sewer Authority  
P.O. Box 7157  
San Juan, Puerto Rico 00922

Dated: \_\_\_\_\_



DORIEL L. PAGAN CRESPO  
Executive Regional Director, North Region  
Puerto Rico Aqueduct & Sewer Authority  
P.O. Box 475  
Arecibo, Puerto Rico 00612

Dated: September 14, 2015



JOEL LUGO ROSA  
Executive Regional Director, West Region  
Puerto Rico Aqueduct & Sewer Authority  
P.O. Box 3290  
Mayaguez, Puerto Rico 00681

Dated: September 10, 2015



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HECTOR GIERBOLINI PÉREZ  
Executive Director, South Region  
Puerto Rico Aqueduct & Sewer Authority  
Apartado 7697  
Ponce, Puerto Rico 00732

Dated: September 10, 2015



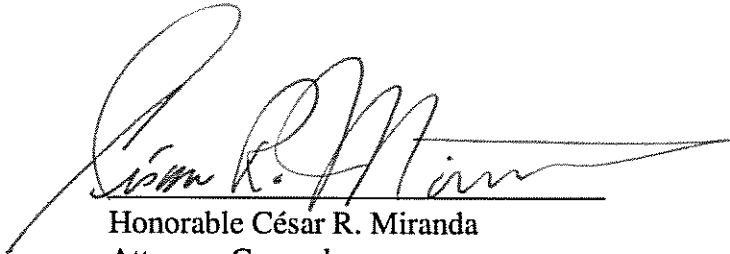
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ROBERTO GUZMÁN VELÁZQUEZ  
Executive Director, East Region  
Puerto Rico Aqueduct & Sewer Authority  
P.O. Box 5729  
Caguas, Puerto Rico 00726

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. Puerto Rico Aqueduct and Sewer Authority, et al.*, Civil No.

FOR THE DEFENDANT THE COMMONWEALTH OF PUERTO RICO:

Date: 9/10/2015

A handwritten signature in black ink, appearing to read "César R. Miranda", written over a horizontal line. The signature is fluid and cursive.

Honorable César R. Miranda  
Attorney General  
Puerto Rico Department of Justice  
PO Box 9020192  
San Juan, PR 00902-0192  
(787) 721-7700

## APPENDIX A



## Appendix A

List of Wastewater Treatment Plants (WWTPs) covered by Consent Decree (as of date of Lodging)

Num.	WWTP Name
1	Adjuntas
2	Aguadilla
3	Aguas Buenas
4	Aibonito
5	Alturas de Orocovis
6	Arecibo
7	Barceloneta
8	Barranquitas
9	Bayamón
10	Caguas
11	Camuy
12	Carolina
13	Cayey
14	Ciales
15	Comerío
16	Corozal
17	Culebra
18	Dorado
19	Fajardo
20	Guánica
21	Guayama
22	Guayanilla
23	Humacao
24	Isabela
25	Jayuya
26	Lajas
27	Lares
28	Las Marías
29	Maricao
30	Maunabo
31	Mayagüez
32	Morovis
33	Naranjito
34	Orocovis
35	Parcelas Borinquen
36	Patillas
37	Peñuelas
38	Ponce
39	Puerto Nuevo
40	Rio Grande Estates
41	San Germán
42	San Sebastián New
43	San Sebastián Old
44	Santa Isabel

**Appendix A**

List of Wastewater Treatment Plants (WWTPs) covered by Consent Decree (as of date of Lodging)

Num.	WWTP Name
45	Toa Alta
46	Unibón
47	Utado
48	Vega Alta
49	Vega Baja
50	Vieques
51	Yabucoa
52	Yauco

## APPENDIX B

## Appendix B

List of Water Treatment Plants (WTPs) covered by Consent Decree (as of date of Lodging)

Num.	WTP Name
1	Aceitunas
2	Adjuntas (Garzas)
3	Adjuntas Vieja (Olimpia)
4	Aguadilla
5	Aguas Buenas
6	Aibonito Urbano
7	Almirante Sur
8	Añasco
9	Apeadero
10	Arecibo Urbano
11	Barrancas
12	Barranquitas Urbana
13	Barrio Nuevo
14	Betances
15	Bucarabones
16	Caguas Norte
17	Caguas Sur
18	Canalizo
19	Canóvanas
20	Cayey
21	Cedro Arriba
22	Ceiba Sur
23	Ciales Urbana (Cordillera)
24	Cidra
25	Coamo
26	Comerío
27	Corozal
28	Coto Laurel
29	Cubuy
30	Cubuy Maizales
31	Culebras Alto
32	Culebrinas
33	El Duque
34	El Yunque
35	Enrique Ortega (La Plata)
36	Esperanza
37	Espino
38	Fajardo Nueva
39	Farallón
40	Frontón
41	Guajataca
42	Guama
43	Guaraguo
44	Guayabota

## Appendix B

List of Water Treatment Plants (WTPs) covered by Consent Decree (as of date of Lodging)

Num.	WTP Name
45	Guayama
46	Guayanés
47	Guaynabo Los Filtros
48	Guilarte
49	Gurabo
50	Guzmán Arriba
51	Hatillo-Camuy
52	Hogares Seguros
53	Humacao
54	Indiera Alta (Bartolo)
55	Isabela
56	Jagual
57	Jaguas Pasto
58	Jaguas-Ceiba
59	Jagüeyes-Villalba
60	Jayuya
61	Jiménez
62	Juncos Urbano
63	La Boca
64	La Máquina
65	La Pica
66	La Plata Nueva (Aibonito)
67	Lajas
68	Lares
69	Lares Nueva (Espino)
70	Las Delicias
71	Las Marías
72	Liza
73	Luquillo (Sabana)
74	Maginas
75	Malpaso
76	Mameyes de Utuado (Abajo)
77	Mameyes Limón (Arriba)
78	Maricao
79	Matrullas
80	Matuyas
81	Minillas
82	Miradero
83	Monte del Estado
84	Morovis Sur
85	Morovis Urbano
86	Negros Corozal
87	Orocovis
88	Patillas

## Appendix B

List of Water Treatment Plants (WTPs) covered by Consent Decree (as of date of Lodging)

Num.	WTP Name
89	Peñuelas
90	Ponce de León
91	Ponce Nueva
92	Ponce Vieja
93	Pozas
94	Quebrada
95	Quebradillas
96	Rancheras
97	Real Anón
98	Río Arriba
99	Río Blanco
100	Rio Grande (Morovis)
101	Río Prieto Sur
102	Rochas
103	Roncador
104	Rucio
105	Sabana Grande
106	Sabana Grande de Utuado
107	San Lorenzo (Cerro Gordo)
108	San Sebastián
109	Sanamuerto
110	Santa Isabel
111	Sergio Cuevas
112	Superacueducto
113	Tibes
114	Toa Vaca
115	Utuado Urbano
116	Vega Baja Urbana
117	Yabucoa (La Pica)
118	Yahuecas
119	Yauco

## APPENDIX C

## APPENDIX C

## LIST OF CAPITAL IMPROVMENT PROJECTS UNDER WWTP CD NO LONGER NECESSARY

Plant	Region	2006 WWTP CD Term	Appendix D 2006 WWTP CD Requirement Description	Estimated Investment Cost	Justification for Elimination
Fajardo	East	2	Complete evaluation for Phase 2 of the new Fajardo Regional WWTP to determine if the treatment capacity increase is necessary.	\$30,000	The expansion of the Fajardo RWWTP is not needed. PRASA has established a capacity management protocol to identify expansion needs when necessary. The Fajardo WWTP has a NPDES permitted flow of 9.2 MGD and the 2012 monthly average was 4.83 MGD.
Lares	North	2	Increase treatment capacity of the facility by the construction of a phosphorous removal facility.	\$600,000	The expansion of the Lares WWTP is not needed. PRASA has established a capacity management protocol to identify expansion needs when necessary. The permitted flow is 1.2 MGD and the 2012 monthly average was 0.39 MGD. The plant is in compliance with phosphorus.
Santa Isabel	South	2	Conduct evaluation to determine if there is a need to construct or expand the facility's ocean outfall.	\$30,000	The outfall of the Santa Isabel WWTP was the limiting factor for expansion at the time when the 2006 WWTP CD was written. Since then, the WWTP has been rehabilitated; treatment trains modified, flow reduced, and the facility's ocean outfall is no longer an issue. The requirement is outdated and therefore eliminated. The permitted flow for the facility is 5.5 MGD and the 2012 monthly average was 1.60 MGD.
Barceloneta	North	2	Expand the treatment capacity of the facility.	\$43,200,000	The expansion of the Barceloneta WWTP is not needed. PRASA has established a capacity management protocol to identify expansion needs when necessary. The permitted flow at the facility is 8.33 MGD and the 2012 monthly average was 5.82 MGD. A new project will address the construction of a disinfection system. This project is included in the Prioritization List.
Comerio	East	3	Retrofit existing facility to achieve phosphorus removal.	\$2,300,000	The facility is in compliance.
Dorado	North	3	Retrofit existing facility to achieve phosphorus removal and increase the treatment capacity or divert the flow from the existing Dorado WWTP to the new Dorado Regional WWTP (if completed).	\$50,000,000	The expansion of the Dorado WWTP is not needed. PRASA has established a capacity management protocol to identify expansion needs when necessary. The Dorado WWTP has a NPDES permitted flow of 4.05 MGD and the 2012 monthly average was 2.29 MGD. Also, Phosphorus is not a parameter included in the NPDES permit.
Unibon	North	3	Divert the flow from the facility to either Corozal or Morovis WWTP.	\$7,800,000	The diversion of the Unibón WWTP is not needed. A re-rating was requested and approved by EPA. The facility is in compliance up to date and was expanded in 2009 with project <i>Expansion of the Unibón WWTP, 80,000 gpd Module</i> CIP# 2-52-5011, from 0.08 MGD to 0.19 MGD.



APPENDIX C

LIST OF CAPITAL IMPROVMENT PROJECTS UNDER WWTP CD NO LONGER NECESSARY

Plant	Region	2006 WWTP CD Term	Appendix D 2006 WWTP CD Requirement Description	Estimated Investment Cost	Justification for Elimination
Vega Baja	North	3	Retrofit existing facility to achieve phosphorus removal and increase the treatment capacity or divert the flow from the existing Vega Baja WWTP to the new Vega Baja Regional WWTP (if completed).	\$50,000,000	<p>The expansion of the Vega Baja WWTP is not needed. PRASA has established a capacity management protocol to identify expansion needs when necessary. The Vega Baja WWTP has a NPDES permitted flow of 4.2 MGD and the 2012 monthly average was 2.96MGD. The requirement to install phosphorus removal equipment was completed in Term 1 with effective results. Currently, the facility is confronting phosphorus removal problems, but operational process improvements are being conducted to address needs and are expected to resolve the situation.</p> <p>In addition, several improvement projects have already been performed at the WWTP. In 2006, a project (CIP 9-99-5059) addressing an expansion and improvements to the WWTP was performed. This project was finalized with the project CIP 2-75-5052, which addressed further improvements such as, digester rehab, belt filter press improvements, railings, among others. Finally, CIP project 2-75-5040, completed in 2011, addressed additional compliance related improvements, such as, the installation of an entrance flow meter, modifications to one of the splitter box, degritter improvements, replacement of the existing influent fine screens, chemical injection system, among others.</p>
Las Marias	West	3	Retrofit existing facility to achieve phosphorus removal and increase treatment capacity by adding an additional phosphorus removal facility.	\$4,300,000	The expansion of the Las Marias WWTP is not needed. PRASA has established a capacity management protocol to identify expansion needs when necessary. The Las Marias WWTP has a NPDES permitted flow of 0.25 MGD and the 2012 monthly average was 0.17 MGD. The facility is also in compliance with phosphorus (Jan 2012-May 2013).
Maricao	West	3	Retrofit existing facility to achieve phosphorus removal and increase treatment capacity by adding an additional phosphorus removal facility.	\$4,000,000	The expansion of the Maricao WWTP is not needed. PRASA has established a capacity management protocol to identify expansion needs when necessary. The Maricao WWTP has a NPDES permitted flow of 0.175 MGD and the 2012 monthly average was 0.071 MGD. The facility is also in compliance with phosphorus (Jan 2012-Feb 2013).

**TOTAL: \$162,260,000**

## APPENDIX D

## APPENDIX D

## LIST OF CAPITAL IMPROVEMENT PROJECTS UNDER WTP CD NO LONGER NECESSARY

Plant	Region	2010 STS CD Term	Appendix E 2010 STS CD Requirement Description	Estimated Investment Cost	Justification for Elimination
La Virgencita	North	CE Phase 3	Increase drying beds capacity or install best available technology if the plant production reaches its 6 MGD nominal capacity.	\$1,100,000	Facility was eliminated in February 2013 and will be reported in the next Triannual Report.
Perchas	West	STS CIP3	Construct a new STS (needs land acquisition)	\$1,000,000	Facility was eliminated with project entitled <i>Installation of 8" pipeline for the elimination of Perchas WTP CIP # 7-68-9000</i> , completed in 2011, as reported in the 4 <sup>th</sup> Triannual Report.
Minillas	East	CE Phase 1 2032	Provide all settling tanks with capacity to remove sludge on a daily basis. Provide holding tank with automatic controls. Increase thickener capacity. Increase drying bed area or provide alternative technology for dewatering.	\$2,300,000	The Environmental Quality Board determined that this WTP does not need or require an NPDES permit. Therefore, as requested by EPA, this project will be eliminated from the 2010 STS CD Agreement.
Quebrada	North	CE Phase 1 2029	Provide settling tanks with technology to remove sludge on a daily basis. Increase capacity of holding tank and thickener. Increase drying beds capacity or provide alternative technology for dewatering.	\$1,500,000	The Environmental Quality Board determined that this WTP does not need or require an NPDES permit. Therefore, as requested by EPA, this project will be eliminated from the 2010 STS CD Agreement.
Quebradillas	North	STS CIP2	Construct STS.	\$3,300,000	The Environmental Quality Board determined that this WTP does not need or require an NPDES permit. Therefore, as requested by EPA, this project will be eliminated from the 2010 STS CD Agreement.
<b>TOTAL:</b>				<b>\$9,200,000</b>	

## APPENDIX E



Autoridad de Acueductos  
y Alcantarillados

ESTADO LIBRE ASOCIADO DE PUERTO RICO

**Puerto Rico Aqueduct and Sewer Authority**

v.103114

# Prioritization System Description

Derived from PRASA  
Water & Wastewater  
Infrastructure Master Plan

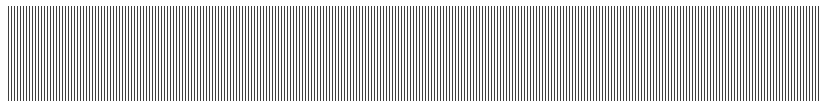


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Report Prepared By:

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# 1 Introduction

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This report summarizes the project prioritization system introduced and used in PRASA's Water and Wastewater Infrastructure Master Plan (Master Plan). PRASA's Master Plan was prepared for a planning period that begins in 2011 and ends in year 2030. Because of the magnitude of projects identified, prioritization of the recommended projects is required to sequence and schedule the projects. In addition to assisting in prioritization of projects for the Master Plan, it is intended that this methodology will be used by PRASA in the future when additional projects are suggested to be added to the CIP.

This system was developed to provide an objective guideline to prioritize the implementation of infrastructure projects in PRASA's Capital Improvement Program (CIP) according to defined criteria. PRASA intends to use the resulting prioritization system as a tool to establish the relative priority of all planned upcoming infrastructure projects with the objective of allocating its limited financial resources according to such priority.

The prioritization system has been developed for three project types: water projects, wastewater projects, and sludge treatment systems (STS) projects. Each prioritization system has been developed taking into consideration regulatory and environmental compliance, operational requirements and needs, as well as population served, among other characteristics. Specific criteria have been defined for each prioritization system and a scoring methodology has been developed in order to objectively prioritize, as much as possible, the list of projects developed in the Master Plan.

The prioritization system also includes a list of water and wastewater projects (the Base List) that will not be subjected to the prioritization process. These projects will be scheduled and included in PRASA's CIP list according to the pre-established implementation schedules as negotiated between PRASA, the United States Environmental Protection Agency (EPA), and/or the Puerto Rico Department of Health (DOH). The water and wastewater projects included in the Base List are presented in this document. However, it should be noted that the project descriptions as well as the completion dates presented herein, are subject to change. PRASA is currently in the process of reviewing current needs and, therefore, project description and completion dates may be updated to reflect these needs.

PRASA has elected to conduct the prioritization of projects in two groups: mandatory projects, which are compliance related; and structure projects, which include all infrastructure, renewal and replacement, non-revenue water reduction, and technology and fleet projects necessary for the maintenance and improvement of the water and wastewater systems. By doing this, mandatory projects and non-mandatory projects will

only compete (priority-wise) within its own category. PRASA has determined that 40% of its annual CIP budget will be assigned to mandatory projects and 60% to structure projects.

All projects (with the exception of those included in the Base List) will be ranked and prioritized according to the criteria, weighting factors, and scores described in the following sections, and considering the CIP funds available in each fiscal year. Projects are assigned start/end dates based on the priority ranking of the scores with the highest scoring projects being assigned start/completion dates earlier and lower scoring projects being pushed further into the future.

This prioritization system was jointly developed by PRASA infrastructure officials and its consultants; with key participation of an independent advisory committee that reviewed and provided comments regarding the methodology, ranking criteria and its associated weighting, as well as with input from representatives of both the DOH and EPA.



## 2 Water Projects Prioritization

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### 2.1 Description of Prioritization Criteria

Four main criteria were selected to prioritize projects: Regulatory Compliance, Quality of Service and Reliability, Operational Efficiency and Improvements, and Population Impacted by Project.

The highest weighting factor was assigned to *Regulatory Compliance*, indicating that compliance with all current and future federal and local requirements is of utmost importance.

The criterion for *Quality of Service and Reliability* was included to consider the infrastructure projects aimed at addressing water supply deficiencies. The Quality of Service and Reliability criteria, considers the ability of a project to address service area average daily demand (ADD) and maximum daily demand (MDD) deficits. The needs assessment reported in the PRASA Master Plan, demonstrated that nearly every service area with a MDD and/or ADD deficit at 2030 also had a deficit in 2010. As such, infrastructure projects would be needed immediately in nearly every service area to address current deficits. Because it is not realistic, nor financially feasible, to begin all projects immediately, the Quality of Service and Reliability criteria was used to score infrastructure projects based on the severity of the deficit in service areas addressed by the project. Because it is considered that it is more critical to address a deficit in the ADD condition than a shortage in the MDD condition, this criteria was further divided by scoring the ADD Deficit (which carried a weighting of 70%) and the MDD Deficit (which carried a weighting of 30%) for each service area. The weighted scores for ADD and MDD were then added to obtain a total score for each service area. The Quality of Service and Reliability score subsequently assigned to a given infrastructure project was the highest individual score obtained by the service areas impacted by the infrastructure project under consideration.

The *Operational Efficiency and Improvements* criterion considers if the project provides any operational efficiency, including extending the useful life of the asset(s), and/or operational cost savings.

The *Population Impacted by a Project* criterion addresses the number of projected population benefited from the project.

Table 2-1 presents a summary of the criteria, weighting factor and definition.

**Table 2-1 Summary of Master Plan Criteria and Weighting Factors for Water Projects**

Criteria	Weighting Factor (percent)	Definition
Regulatory Compliance	40	This criterion represents the effect that a given project would have on compliance-related issues. It is based on the historical compliance records for each facility.
Quality of Service & Reliability	30	This criterion represents the ability of a project to address service areas with average day demand and/or maximum day demand deficits.
Operational Efficiency and Improvements	20	This criterion measures the effect that a given project will have on operational efficiency with scores assigned based on the anticipated operational savings incurred or the need to replace elements of the water system before their useful life expires. Projects that may reduce operating costs include WTP rehabilitation, reducing non-revenue water (NRW), upgrading instrumentation, or upgrading solids handling.
Population Impacted by a Project	10	This criterion represents the population that would be benefitted by a particular project.

## 2.2 Scoring of Projects

The score of each project was determined by adding the four prioritization weighted scores. Each criterion has a scoring guideline that describes how a value from 0 to 3 is assigned depending on the characteristics of the project.

Table 2-2 presents the scoring guidelines for each of the water projects prioritization criteria.

Table 2-2 Scoring Guidelines for Water Projects Criteria

Criteria	Score	Scoring Guidelines
Regulatory Compliance	3	Project <u>comprehensively</u> <sup>1</sup> addresses solving compliance problems at facilities in which three or more exceedances have occurred in any given 12-month period for one or more of the following parameters: Bacteriology, Turbidity, TOC, TTHM and/or HAA5.
		Project <u>comprehensively</u> addresses compliance with CT or with solving compliance problems at facilities in which three or more exceedances have occurred in any given 12-month period for two or more Other parameters. Other parameters include, but are not limited to: BOD, DO, pH, residual chlorine, NH <sub>3</sub> , etc.
		Project addresses compliance issues identified or required by new regulations (such as ST2, LT2, GWR, GWUDI, and needs identified in comprehensive performance evaluations required by the “Acuerdo Transaccional Enmendado”, etc.) which must be addressed on or before 24-months from the date of project identification and definition.
	2	Project <u>partially</u> <sup>2</sup> addresses compliance issues at facilities in which three or more exceedances have occurred in any given 12-month period for one or more of the following parameters: Bacteriology, Turbidity, TOC, TTHM and/or HAA5.
		Project <u>partially</u> addresses compliance with CT or with solving compliance problems at facilities in which three or more exceedances have occurred in any given 12-month period for two or more Other parameters. Other parameters include, but are not limited to: BOD, DO, pH, residual chlorine, NH <sub>3</sub> , etc.
		Project <u>comprehensively</u> addresses solving compliance problems at facilities in which three or more exceedances have occurred in any given 12-month period for one Other parameters. Other parameters include, but are not limited to: BOD, DO, pH, residual chlorine, NH <sub>3</sub> , etc.
		Project addresses compliance issues identified or required by new regulations (such as ST2, LT2, GWR, GWUDI, and needs identified in comprehensive performance evaluations required by the “Acuerdo Transaccional Enmendado”, etc.) which must be addressed and completed within a 24 (not inclusive) to 36-month period from the date of project identification and definition.
	1	Project addresses compliance problems at facilities in which one or two exceedances have occurred in any given 12-month period for one or more parameters (Bacteriology, Turbidity, TOC, TTHM, HAA5, Other).
		Project addresses compliance-related issues at facilities, even if no compliance issues have been reported.
	0	Project does not address compliance related issues.

<sup>1</sup> Comprehensively= describes projects that completely address compliance problems identified.

<sup>2</sup> Partially= describes projects that only partially (not completely) address compliance problems identified.

Criteria	Score	Scoring Guidelines			
Quality of Service & Reliability	Max SA Score	Maximum value of the scores for the service areas impacted based on ADD and MDD deficit.			
		Criteria	Sub Criteria	Weight	Scoring Criteria for both ADD and MDD
		Quality of Service and Reliability	ADD Deficit	70%	3- Deficit greater than 5 MGD 2- Deficit between 0.5 and 4.99 MGD
			MDD Deficit	30%	1 - Deficit less than 0.5 MGD 0 - No deficit
		Refer to the island-wide water balances that include the ADD deficit and MDD Deficit for each service area, included in PRASA's Water Master Plan Final Report.			
Operational Efficiency and Improvements	3	Implementing the project will result in a considerable annual operational cost savings.			
		Project is a rehabilitation project that replaces an item with a useful life expected to expire within 3 years (by 2013). Useful life of an item was estimated based on the type of item and construction year (ie. Useful life of a package plant is estimated to be 40 years).			
	2	Implementing the project will result in a moderate annual operational cost savings.			
		Project is a rehabilitation project that replaces an item with a useful life expected to expire within 10 years (by 2020). Useful life of an item was estimated based on the type of item and the construction year (ie. Useful life of a package plant is estimated to be 40 years).			
	1	Implementing the project will result in a minimal annual operational cost savings.			
Project is a rehabilitation project that replaces an item with a useful life expected to expire later than 10 years from now (beyond 2020). Useful life of an item was estimated based on the type of item and the construction year.					
0	Implementing the project does not result in any annual operational cost savings or project is not related to operational efficiency.				
Population Impacted by a Project	3	Project will benefit more than 100,000 people.			
	2	Project will benefit between 10,000 and 100,000 people.			
	1	Project will benefit fewer than 10,000 people.			
	0	Project will not directly benefit any population.			

The scoring guidelines, presented in Table 2-2, are provided to help assign scores as objectively as possible. The maximum score a project can receive for each criterion is 3 (high priority), and the minimum score is zero (low priority). When possible, numerical scales are used to assign scores that indicate the degree to which a project helps achieve the goals defined in the criteria.

If more than one scoring guideline is shown for a particular score, it is used in an "either/or" fashion. For example, a project can score a 3 for *Operational Efficiency and Improvements* if it either results in considerable annual operational cost savings or if a

project is a rehabilitation project that replaces an item with a useful life expected to expire within 3 years.

The prioritization weighting factors and scoring guidelines were prepared in coordination with PRASA and more recently with EPA and DOH. This weighting factors and scoring guidelines may be revised or modified as time progresses and PRASA's available information.

## 2.3 Water Projects Base

Considering the current status of certain projects and commitments with both the DOH and EPA, PRASA has identified 23 water projects to be included in the Base List. These projects already have defined schedules that will not be altered and will, therefore, bypass the prioritization system. As such, these projects will be included in PRASA's CIP list of projects with the pre-established implementation schedules to meet the mandated completion dates. However, to do this, other projects that may have higher priorities, but are not in the Base List, will be "bumped" down in the list as necessary. Table 2-3 includes the water projects (as well as STS projects) included in the Base List. As previously mentioned, the project descriptions and completion dates presented in Table 2-3 are subject to change. PRASA is currently in the process of reviewing facility needs, updating project descriptions, and revising completion dates in coordination with DOH.

**Table 2-3 Water Projects in Base List**

Region	Facility	Project Description	Term	Expected Compliance Date
East	Aguas Buenas WTP	Installation UV and/or filter optimization.	LT2	Sep-15
East	Barranquitas WTP	Installation UV and/or filter optimization.	LT2	Sep-15
East	Ceiba Sur WTP	Eliminate plant with the new Valenciano WTP or alternate project to eliminate plant.	LP2/ STS CIP2	Jul-17
East	Jiménez WTP	Construct a new STS, or connect and eliminate system with Morovis/EI Yunque WTP.	STS-CIP3	Dec-17
East	Luquillo (Sabana) WTP	Installation UV and/or filter optimization.	LT2	Sep-15
North	Cedro Arriba WTP	Improvements to the Cedro Arriba WTP according to CPE. Increase drying beds capacity; or use alternative equipment.	LP2/ CE Phase 2	Dec-16
North	Hatillo-Camuy WTP	Improvements to the water dam that includes the pit, retaining wall and raw water pipeline evaluation. Construction of new polymer storage if needed.	LP2	Jul-17

Region	Facility	Project Description	Term	Expected Compliance Date
North	Hatillo-Camuy WTP	Construction of new storage tanks in strategic areas for distribution in Hatillo WTP as coordinated with PRASA Operations.	LP2	Dec-14
North	Jayuya WTP	Construction Presedimentation System.	Action Plan ATE	Dec-16
North	Morovis Sur WTP	Rehabilitation of Morovis Sur WTP, Phase II (Rehabilitation of raw water intake, filter rehab and STS).	LP2/ STS CIP2	Dec-15
North	Morovis Sur WTP	Install UV.	LT2	Dec-14 <sup>1</sup>
North	Morovis Urbano WTP	Filter rehab, valves replacement, installation of "tube settlers", flocculation expansion, improvements to the filter backwash system and distribution tank.	LP2	Dec-15
North	Morovis Urbano WTP	Presedimentation and filter optimization.	LT2	Mar-15 <sup>2</sup>
North	Quebrada Camuy WTP	Install UV and plant rehabilitation.	LT2	Sep-15
North	Vega Baja WTP	Install UV.	LT2	Mar-15
South	Coto Laurel WTP	Rehabilitation of the Coto Laurel WTP that includes: new oxidant chemical feed system, replacement of aerators, installation of a new dissolved air flotation unit, rehabilitation of filters, installation of baffles in the existing clearwell, construction of a new distribution tank and electrical improvements.	Action Plan ATE	Dec-17
South	Guayama WTP	Improvements to the Guayama WTP: includes the installation of settling tanks and improvements to the sludge treatment system.	LP1/ CE Phase I	Oct-14
South	Orocovis WTP	Installation UV and/or filter optimization.	LT2	Sep-15
South	Ponce Nueva WTP	Rehabilitation of the Ponce Nueva WTP that includes: new rapid mixer, rehabilitation of the superpulser clarifiers, rehabilitation of filters and installation of baffles in the existing distribution tank.	Action Plan ATE	Dec-17
South	Ponce Vieja WTP	Elimination of the existing Ponce Vieja WTP with the construction of a new pump station, water lines and a connection to the new 4MG Ponce Tank.	Action Plan ATE	Dec-17

Region	Facility	Project Description	Term	Expected Compliance Date
West	Guajataca	Improvements to the Guajataca WTP- Rehabilitation of two modular package plants including the sludge treatment system.	CE Phase 1/ STS CIP3	Jan-16
West	La Máquina WTP	La Máquina WTP elimination through the transmission pipeline from the Maginas WTP.	LP3/ STS CIP 3	Dec-16
West	Rocha WTP	Rocha WTP elimination through the transmission pipeline from Isabela WTP.	LP3/ STS CIP 3	Dec-16

<sup>1</sup> December 16, 2014

<sup>2</sup> March 18, 2015

## 3 Wastewater Projects Prioritization

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### 3.1 Prioritization Criteria Description

Similar to the prioritization criteria for water projects described in Section 1, the wastewater criteria was selected in order to establish the projects' priority. As in the water case, four main criteria were selected to prioritize wastewater projects: Regulatory Compliance, Operational Efficiency and Improvements, Quality of Service and Reliability and Population Impacted by Project.

As in the water case, the highest weighting factor was assigned to *Regulatory Compliance*, indicating that compliance with all current and future federal and local requirements is of utmost importance.

The *Quality of Service and Reliability* was included to consider the infrastructure projects aimed at addressing wastewater collection/treatment deficiencies.

The *Operational Efficiency and Improvements* criterion considers if the project provides any operational efficiency, including extending the useful life of the asset(s), and/or operational cost savings.

The *Population Impacted* by a Project criterion addresses the number of projected population benefited from the project.

Table 3-1 presents a summary of the criteria, weighting factor and definition.



**Table 3-1 Master Plan Criteria and Weighting Factors for Wastewater Projects**

Criteria	Weighting Factor (percent)	Definition
Regulatory Compliance	40	This criterion represents the effect that a given project would have on compliance-related issues. It is based on the historical compliance record of discharge parameters as summarized in the Discharge Monitoring Reports (DMR).
Quality of Service & Reliability	30	This criterion measures the effect that a given project would have on addressing operational issues in order to improve the quality of service and reliability of the wastewater collection system. Examples of these include projects that will result in the reduction or elimination of illegal wastewater discharges and/or sewer overflows, reduction or elimination of inflow and infiltration (I&I), etc.
Operational Efficiency and Improvements	20	This criterion measures the effect that a given project will have on operational efficiency with scores assigned based on the anticipated operational savings incurred or the need to replace elements of the wastewater system before their useful life expires. Projects that may reduce operating costs include WWTP rehabilitation, upgrading instrumentation, or consolidating service areas.
Population Impacted by a Project	10	This criterion measures the number of projected population that would be benefitted by the project.

### 3.2 Scoring of Projects

The total prioritization score of each project is determined by adding together each of the four criterion weighted scores. Each criterion has a different scoring guideline that describes how a score value from 0 to a maximum of 3 is assigned depending on the characteristics of the project.

Table 3-2 presents the scoring guidelines for each of the four wastewater projects prioritization criteria.

**Table 3-2 Scoring Guidelines for Wastewater Projects Criteria**

Criteria	Score	Scoring Guidelines
Regulatory Compliance	3	Project <u>comprehensively</u> addresses environmental compliance issues at facilities for which final NPDES effluent limits for three or more Conventional and/or Non-conventional Parameters <sup>1</sup> have been exceeded three or more times in any given 12-month period.
		Project addresses environmental compliance issues at facilities where monthly average permitted flow has been exceeded by 105% three or more times in any given 12-month period.
	2	Project <u>partially</u> addresses environmental compliance issues at facilities for which final NPDES effluent limits for three or more Conventional and/or Non-conventional Parameters have been exceeded three or more times in any given 12-month period.
		Project <u>comprehensively</u> or partially addresses environmental compliance issues at facilities for which final NPDES effluent limits for one or two Conventional and/or Non-Conventional Parameters have been exceeded three or more times in any given 12-month period.
	1	Project addresses environmental compliance-related issues at facilities, even if no compliance issues have been reported.
0	Project does not address compliance related issues.	
Quality of Service & Reliability	3	Project will substantially increase capacity and/or improve the condition of the wastewater collection system in sensitive areas such as water supply intakes and/or bodies of water used for direct contact (i.e., fishing and recreation).
	2	Project will moderately increase capacity and/or improve the condition of the wastewater collection system in less sensitive areas such as bodies of water not used for direct contact.
	1	Project will increase capacity and/or improve the condition of the wastewater collection system in a preventive manner.
	0	Project is not related to improving the quality of collection systems.
Operational Efficiency and Improvements	3	Project will rehabilitate or replace a major asset (WWTP, Trunk sewer etc.) in unacceptable condition. Asset condition is evidenced by visual inspection or an approved testing method.
		Project is expected to provide considerable annual operational cost savings; and will offset the investment in a payback period of 4 years or less.
	2	Project consists of the rehabilitation or replacement of an infrastructure asset with a useful life that is expected to expire within 3 years of the proposed project's implementation time. Asset useful life is estimated based on asset type and the year it was built (i.e. Useful life of a package plant is estimated to be 40 years).
	2	Project will rehabilitate or replace a major asset (WWTP, Trunk sewer etc.) in poor condition. Asset condition is evidenced by visual inspection or an approved testing method.

Criteria	Score	Scoring Guidelines
		Project is expected to provide moderate annual operational cost savings; and will offset the investment in a payback period of 8 years or less.
		Project consists of the rehabilitation or replacement of an infrastructure asset with a useful life that is expected to expire within 10 years of the proposed project's implementation time. Asset useful life is estimated based on asset type and the year it was built (i.e. Useful life of a package plant is estimated to be 40 years).
	1	Project will rehabilitate or replace a major asset (WWTP, Trunk sewer etc.) in average condition. Asset condition is evidenced by visual inspection or an approved testing method
		Project is expected to provide some operational cost savings; and will offset the investment in a payback period of 10 years or less.
	0	Project does not result in operational cost savings; does not address useful life or asset condition concerns and does not improve the system's operational efficiency.
Population Impacted by a Project	3	Project will benefit more than 100,000 people.
	2	Project will benefit between 10,000 and 100,000 people.
	1	Project will benefit fewer than 10,000 people.
	0	Project will not directly benefit any population.

<sup>1</sup>Conventional and Non-Conventional Parameters to be evaluated for scoring purposes are: Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Chlorine Residual, Dissolved Oxygen (DO), Fecal and Total Coliforms, Ammonia (NH<sub>3</sub>), Nitrates plus Nitrites (NO<sub>2</sub>+NO<sub>3</sub>), Total Nitrogen, and Total Phosphorus.

The scoring guidelines, presented in Table 3-2, are provided to help assign scores as objectively as possible. The maximum score a project can receive for each criterion is 3 (high priority), and the minimum score is zero (low priority). When possible, numerical scales are used to assign scores that indicate the degree to which a project helps achieve the goals defined in the criteria.

If more than one scoring guideline is shown for a particular score, it is used in an "either/or" fashion. For example, a project can score a 3 for *Operational Efficiency and Improvements* if it either results in considerable annual operational cost savings or if a project is a rehabilitation project that replaces an item with a useful life expected to expire within 3 years.

The prioritization weighting factors and scoring guidelines were prepared in coordination with PRASA. This weighting factors and scoring guidelines may be revised or modified as time progresses and PRASA's available information.

### 3.3 Wastewater Projects Base

Considering the current status of certain projects and commitments with both the DOH and EPA, PRASA has identified 16 wastewater projects to be included in the Base List. These projects already have defined schedules that will not be altered and will, therefore, by-pass the prioritization system. As such, these projects will be included in PRASA's CIP list with the pre-established implementation schedules to meet the mandated completion dates. However, to do this, other projects that may have higher priorities, but are not in the Base List, will be "bumped" down in the list as necessary. Table 3-3 includes the projects Base List for wastewater projects. As previously mentioned, the project descriptions and completion dates presented in Table 3-3 are subject to change. PRASA is currently in the process of reviewing facility needs, updating project descriptions, and revising completion dates in coordination with EPA.

**Table 3-3 Wastewater Projects in Base List**

Region	Facility	Project Description	Term	Expected Compliance Date
East	Rio Grande Estates	Divert facility to the private CBUC plant or to the Carolina/Fajardo WWTP	MCD-3	2018
East	Caguas	Aguas Buenas/Caguas Sanitary Trunk Sewer Collection System	MCD-3	2018
Islandwide	Islandwide	Actualization of the Islandwide Study (PSSSEP)	N/A	2015
Metro	Puerto Nuevo	Perform a study to determine the condition of the land portion of the facility's outfall. Install flow proportional chlorination equipment	MCD-2	2016
Metro	Puerto Nuevo	Installation of a Degritter System	MCD-2	2017
Metro	Carolina	Installation of new intake screens, new grit removal system, improvements to the sludge management system and general electrical rehabilitation	MCD-3	2014
Metro	Bayamón	Overall Improvement Project: Influent Headworks, Influent Pumps, Grit Removal System and Clarifier's Traveling Bridges	MCD-2	2016
Metro	Puerto Nuevo	San Jose Trunk Sewer Rehabilitation - 900 mts and 66" diameter	N/A	2016
North	Corozal	Retrofit existing facility to achieve nutrient removal	MCD-2	2018
North	Toa Alta Heights	I/I Study	N/A	2016
South	Alturas de Orocovis	Divert the flow from the facility to the Orocovis WWTP	MCD-2	2016

Region	Facility	Project Description	Term	Expected Compliance Date
South	Guayanilla	Technical Cost Evaluation for the consolidation of the Peñuelas and Guayanilla WWTPs to the Yauco WWTP	MCD-2	2016
South	Patillas	Divert facility to the Guayama Regional WWTP	MCD-2	2018
South	Peñuelas	Technical Cost Evaluation for the consolidation of the Peñuelas and Guayanilla WWTPs to the Yauco WWTP	MCD-3	2016
South	Ponce	Phase II: Rehabilitation of Trunk Sewer (28 km)	N/A	2017
West	Isabela	Diversion of the Isabela WWTP discharge to Costa Isabela Resort	MCD-2	2018

## 4 Sludge Treatment Systems Prioritization

### 4.1 Description of Prioritization Criteria

Two main criteria were selected to prioritize Sludge Treatment System (STS) projects: Regulatory Compliance and Capacity, Operational Efficiency and Improvements. Both criteria have been assigned a weight factor of 50%.

The *Regulatory Compliance* criterion considers compliance with all current and future federal and local requirements.

The *Capacity, Operational Efficiency and Improvements* criterion considers if the project provides any operational efficiency, including extending the useful life of the asset(s), and/or operational cost savings.

Table 4-1 presents a summary of the criteria, weighting factor and definition.

**Table 4-1 Master Plan Criteria and Weighting Factors for STS Projects**

Criteria	Weighting Factor (percent)	Definition
Regulatory Compliance	50	This criterion represents the effect that a given project would have on compliance-related issues. It is based on the historical compliance record of discharge parameters as summarized in the Discharge Monitoring Reports (DMR).
Capacity, Operational Efficiency and Improvements	50	This criterion measures the effect that a given project will have on operational efficiency with scores assigned based on the need to replace elements of the sludge treatment system that are out of order or are close to its useful life limit.

### 4.2 Scoring of Projects

The total prioritization score of each project is determined by adding together each of the four criterion weighted scores. Each criterion has a different scoring guideline that describes how a score value from 0 to a maximum of 1.5 is assigned depending on the characteristics of the project.

Table 4-2 presents the scoring guidelines for each prioritization criteria for STS projects.

**Table 4-2 Scoring Guidelines for STS Projects Criteria**

Criteria	Score	Scoring Guidelines
Regulatory Compliance	1.5	Project comprehensively addresses environmental compliance issues at facilities for which final NPDES effluent limits for three or more Conventional and/or Non-conventional Parameters <sup>1</sup> have been exceeded three or more times in any given 12-month period.
		Project addresses compliance issues at facilities where monthly average permitted flow has been exceeded three or more times in any given 12-month period.
	1	Project partially addresses environmental compliance issues at facilities for which final NPDES effluent limits for three or more Conventional and/or Non-conventional Parameters have been exceeded three or more times in any given 12-month period.
		Project comprehensively or partially addresses environmental compliance issues at facilities for which final NPDES effluent limits for one or two Conventional and/or Non-Conventional Parameters have been exceeded three or more times in any given 12-month period.
	0.5	Project addresses environmental compliance-related issues at facilities, even if no compliance issues have been reported.
0	Project does not address any compliance related issues.	
Capacity, Operational Efficiency and Improvements	1.5	New STS project in new or existing WTP facility.
		Project will expand and/or rehabilitate or replace a major STS asset (sludge drying beds, sludge holding tank, etc.) in unacceptable condition that is expected to result in imminent failure or has already failed (not in operation). Asset condition is evidenced by visual inspection or an approved testing method.
	1	Project will rehabilitate or replace equipment in poor condition but that is in operation. Asset condition is evidenced by visual inspection or an approved testing method.
	0.5	Project will rehabilitate or replace equipment in average condition. Asset condition is evidenced by visual inspection or an approved testing method.
	0	Project does not addresses useful life or asset condition concerns and does not improve the system's operational efficiency.

The scoring guidelines presented in Table 4-2 are provided to help assign scores as objectively as possible. The maximum score a project can receive for each criterion is 1.5 (high priority), and the minimum score is zero (low priority). When possible, numerical scales are used to assign scores that indicate the degree to which a project helps achieve the goals defined in the criteria. If more than one scoring guideline is shown for a particular score, it is used in an “either/or” fashion. The prioritization weighting factors and scoring guidelines were prepared in coordination with PRASA, EPA, and DOH. This weighting factors and scoring guidelines may be revised or modified as time progresses and PRASA’s available information.

Base List STS projects were included in Table 2-3 under the Water Projects Base Section. There are a total of 9 STS projects included in the Base List.



## 5 Conclusion

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PRASA has prepared this prioritization system to provide an objective guideline to prioritize the implementation of infrastructure projects in PRASA's CIP according to defined criteria. The prioritization system was originally developed under PRASA's Master Plan effort and has been updated to reflect additional input provided by PRASA, EPA and DOH. The prioritization system will be adopted by PRASA and will be used to rank and schedule PRASA's CIP projects considering its available financial resources. PRASA expects this system to be dynamic, as PRASA's needs and projects change throughout time. Projects are modified, added or removed from PRASA's CIP list on a continuous basis. Therefore, as needs arise, projects are revised, and as funds become available; project rankings and schedules may change.

## APPENDIX F

## Appendix F

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
1	<b>Adjuntas</b>	Adjuntas Plaza
2		La Playita
3		San Joaquin
4	<b>Aguadilla Regional</b>	Barrero PS
5		Borinquen (Los Chiches)
6		Caceres
7		Casualidad
8		Complejo Deportivo Corivadas
9		Corrales
10		Cruz Isleta PS
11		El Prado
12		Estela P S
13		Guerrero Ward
14		Industrial Aguacate I
15		Industrial Aguacate II
16		Jardin del Atlantico - Elderly Housing
17		Jardines de Maribel
18		Lift Station No. 5
19		Los Almendros
20		Los Robles
21		Moca (Pueblo)
22		Moca El Parque
23		Montana
24		Montana Industrial Area
25		Paseos de San Antonio
26	Poblado San Antonio	
27	Poblado San Antonio High School	
28	Pump Pit	
29	Rafael Hernandez	
30	Ramey No. 2 (4424)	
31	Ramey No. 4 (main)	
32	Ramey No.1 (813)	
33	Rincon	
34	Rincon II	
35	San Antonio	
36	San Cristobal	
37	Troncal Este	
38	Villa Alegria	
39	Villa Marbella	
40	Villa Turistica	
41	Vista Azul	
42	Voladoras	
43	<b>Aguas Buenas</b>	Monserate
44		Palmas Reales
45		San Antonio
46		Sonadora (Mulas)
47	Vistas de Jagueyes	
48	<b>Aibonito</b>	Hacienda Kamila (Jatibonito)
49		Altos de la Villa
50		Bajadero
51		Coca Cola
52		Coca Cola (Rodríguez Olmo)
53		Dominguito I
54		Dominguito II
55		Dominguito III

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List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
56	Arecibo	Escuela Jose R Rivera
57		Estancias de la Sabana
58		Hacienda Toledo LS
59		Islote 1
60		Islote 2
61		Jardines de Arecibo
62		Jardines de San Rafael
63		Las Brisas
64		Pajuil
65		Puerta del Este (Paseos Reales)
66		Sabana Hoyos 2
67		Santana (Los Pinos)
68		Villas de Garrochales
69	Barceloneta	Buffalo
70		Campo Alegre
71		Campo Alegre LS
72		Cimarrona (Magueyes)
73		Coto Norte
74		Estancias de Tortuguero
75		Ext Estancias de Tortuguero
76		Florida a Barceloneta
77		Florida Pueblo
78		Jardines de Monaco
79		Las Vegas
80		Luchetti
81		Monte Verde 1
82		Monte Verde 2
83		Pajonal 1
84		Pajonal 2
85		Pajonal 3
86		Plazuela
87		Porto Fino
88		Pta. Palmas II
89		San Francisco
90		Villas de Manati
91		Vistas de Atenas
92	Barranquitas	Barranquitas
93		El Porton
94		Palo Hincado I
95	Palo Hincado II	
96		Altavista Court
97		Altomonte
98		Bay View
99		Bo Piñas Esc Intermedia
100		Camino del Mar
101		Campanillas
102		Campo Verde
103		Campos del Toa
104		Ciudad Jardin
105		Colimar
106		Colinas Metropolitanas
107		El Alamo
108		El Zorzal-Bethel
109		Enramada
110		Estancias de Altomonte

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List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
111	Bayamón	Estancias de Cerro Gordo 2
112		Fuente Bella
113		Hacienda Elena I
114		Hacienda Elena II
115		Hacienda Elena III
116		Hillside
117		Jardines de la Fuente
118		La Pradera
119		La Providencia
120		Lagos de Plata
121		Las Americas
122		Las Colinas
123		Las Gaviotas
124		Las Vegas
125		Las Veredas
126		Levittown 1
127		Levittown 2
128		Luchetti
129		Mabo
130		Mansiones de Guaynabo
131		Mansiones de Monte Casino
132		Martinez Nadal
133		Miraflores
134		Monte Sol
135		Monte Verde
136		Palacios del Monte
137		Palacios del Rio
138		Palmar del Rio
139		Palo Seco
140		Paseo Altavista
141		Piedras Blancas
142		Porticos de Guaynabo
143		Praderas del Rio
144		Puente Blanco
145		Quintas del Rio
146		Rio Plantation
147		Ridge Top Luxury Apts.
148		Riverview
149		San Pedro
150		San Rafael
151		San's Souci
152		Santa Catalina
153		Serena
154		Siderurgica
155		Sierra Berdecia
156		Sierra Taina
157		Toa Alta Heigh LS
158	Toa Alta Heights WWTP	
159	Toa Linda	
160	Vacio Ingenio	
161	Valencia	
162	Valle Santa Olaya	
163	Villas de Buena Vista	
164	Vistas del Bosque	
165	Altos de La Fuente	

## Appendix F

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
166		Alturas de Hato Nuevo
167		Alturas Villa del Rey
168		Amgen
169		Angora India
170		Barriada Roosevelt
171		Caguas Norte
172		Cementerio
173		Ciudad Jardin
174		Colinas
175		El Encanto
176		Ensanche
177		Escuela El Mango
178		Estancias de Juncos
179		Estancias del Lago
180		Estancias del Rio
181		Ferrero
182		General Electric
183		Gran Vista II
184		Hato
185		Industrial - San Lorenzo
186		Jardines de Cerro Gordo
187		Jardines de San Lorenzo
188		Jose Delgado
189		José Mercado #1
190		Jose Mercado 2
191		Jose Mercado No. 2
192		Juncos Plaza
193	<b>Caguas Regional</b>	La Placita (Laderas Nueva)
194		La Serranía
195		Laderas de Juncos
196		Laderas de San Juan
197		Las Carolinas
198		Lirios Cala
199		Los Almendros
200		Los Flamboyanes
201		Los Prados
202		Los Robles
203		Los Tolinches
204		Maga Tree
205		Pachanga
206		Quintas De San Luis
207		Reina de Los Angeles
208		Salvatierra I
209		Salvatierra II
210		San Pedro States
211		Santa Barbara
212		Santa Elvira
213		Santa Rosa
214		Valle de San Luis
215		Valles del Lago
216		Villa Caliz I
217		Villa Caliz II
218		Villa Del Rey I
219		Villa Del Rey IV
220		Villa Esperanza

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List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>	
221		Vistas del Rio	
222	Camuy	Carrizales	
223		Costa Norte	
224		Lift Station No. 13	
225		Los Corales	
226		Luis Rodriguez	
227		Mar Azul	
228		Punta Maracayo	
229		Terranova	
230		Vistas (Brisas) de Camuy	
231		Carolina	Brisas de Loiza
232			Buenaventura
233	Carolina Industrial Park		
234	Carolina Pueblo		
235	Ciudad Central		
236	Conquistador 1		
237	Conquistador 3		
238	Country Club		
239	El Cabo		
240	Encantada		
241	Guzman Abajo		
242	Hacienda Real		
243	Haciendas de Carraizo		
244	Hong-Kong		
245	Hoyo Mulas Sludge		
246	Industrial Las Cuevas		
247	Jardines de Carolina		
248	La Ceramica		
249	La Gallera		
250	La Lomita		
251	Loiza Apt		
252	Loiza D		
253	Loiza E (Parcelas Vieques)		
254	Loiza Pueblo		
255	Lomas de Carolina		
256	Los Angeles		
257	Los Colobos		
258	Los Mirtos		
259	Lourdes		
260	Malibu Beach		
261	Martin Gonzalez		
262	Metropolis		
263	Mini Mini		
264	Montecarlo		
265	Parque de Montebello		
266	Parque Ecuestre		
267	Parque Escorial		
268	Rio Cristal		
269	Rio Grande - Carolina (ALC)		
270	River Garden		
271	River Valley		
272	Sabana LLana		
273	San Isidro		
274	San Martin		
275	Santa Maria		

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
276		Torrecillas
277		Trujillo Alto (Pueblo)
278		Trujillo Alto (Puente)
279		Victoria Industrial
280		Villa Carolina
281		Villa Carolina (Eyectores)
282		Villas de Rio Grande
283		Villas del Mar
284		Vistamar (El Moroco)
285		Vistamar Marina
286		Wonderville
287		Arenas
288		Beatriz PS
289		Cidra 2
290		Cidra I
291		Ciudad Primavera (Estancias del Bosque)
292		Consolidated (Cigar)
293		Estancias de Cidra (Zapera)
294		Estancias de Monte Rio
295		Fuente de Agua Viva
296		Mansiones de Monte Verde
297		Maton 1
298		Maton 2
299		Miguel Rivera Martinez (Santa Teresita)
300		Reparto Montellano
301		Rincon Master
302		San Tomas
303		Treasure Valley
304		Barahona Ward No. 1
305		Barahona Ward No. 2
306		Brisas de Jaguas
307		Caliche
308		Casita
309		Dos Rios
310		Las Guavas
311		Pueblito
312		Valle Barahona
313		Valles San Luis
314		Comerio Troncal
315		Sabana del Palmar
316		Cerro Monte
317		El Idilio
318		Maria del Carmen
319		Monte Rey
320		Aeropuerto
321		Estación Auxiliar de Relevo
322		Campanilla Ward School Pumping Station
323		Candelaria Arenas
324		Clusters (Villas del Mar)
325		Costa de Oro
326		Dorado Beach
327		Dorado Beach East LS
328		Dorado Country Estates
329		Dorado del Mar
330		Dorado Reef



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List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
331	<b>Dorado</b>	Dorado Regency
332		Dorado Royale
333		Esc. Jose de Diego
334		Estancias de Cerro Gordo
335		Estancias de San Nicolas
336		La Pachanga
337		Los Prados
338		Mameyal
339		Monte Elena
340		North Coast Village
341		Palma Dorada
342		Sabanera
343		San Antonio (Dorado)
344		Toa Baja
345		Vega Alta Dorado Club LS
346		Villa Alegria
347	<b>Fajardo Regional</b>	Aguas Claras
348		Allen Group
349		Alturas San Pedro
350		Barriada Obrera
351		Brisas de Ceiba
352		Brisas del Mar
353		Casa del Mar
354		Costa Azul
355		Costa Esmeralda
356		Costa Real
357		EBAS CINEMAS
358		Fajardo
359		Fajardo "Gardens"
360		Juan Martin
361		Las Gaviotas
362		Las Vegas
363		Los Kioskos
364		Luis Cintron
365		Montesol
366		Paisaje del Lago
367		Palmer
368		Posa del Mar
369		Puerto Real
370		Sanitary pump station
371		Santa Isidra
372		Santa Maria.
373		Solimar
374		Villa Marina
375		Villa Penetro
376		Villas del Pilar
377		Vistas del Convento
378		Westin Rio Mar
379	<b>Guánica</b>	Bacó
380		Bahia Guanica (Playa)
381		Ensenada
382		Salinas Providencia
383		Aguirre-Montesoria I
384		Algarrobo
385		Arroyo (Troncal Arroyo)

## Appendix F

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>	
386	Guayama	Branderi (Troncal)	
387		Campamento	
388		Ciudad Universitaria	
389		Green Hills	
390		Hacienda Los Recreos	
391		Hostos (Mirasol)	
392		Hostos (Nueva)	
393		Jardines de Guamani	
394		Jobos Penal	
395		La Margarita	
396		Las Ochentas	
397		Olimpo	
398		Palmas	
399		Playa Salinas	
400		Portal de Ancones	
401		Puente de Jobos (Troncal)	
402		Salinas (Troncal)	
403		San Felipe	
404		Guayanilla	Bahia
405			Costa Sur 2
406	Costa Sur 3		
407	La Concepcion		
408	Municipal		
409	Humacao Regional	April Gardens	
410		Arenales	
411		Botijas	
412		Brisas del Rio	
413		Brisas del Valle	
414		Buena Vista	
415		Buxo	
416		Campo Real	
417		Candelero	
418		Casabella	
419		Ciudad Cristiana	
420		Club Civico	
421		Estancias de la Via	
422		Estancias de Naguabo	
423		Fomento	
424		Fomento Industrial	
425		Hucares II	
426		Hucares II (Fomento)	
427		Jardin del Este	
428		Johnson & Johnson	
429		Junquito	
430		La Campina	
431		La Inmaculada	
432		Las Piedras Food Park	
433		Las Piedras-Humacao	
434		Mc Neill	
435		Melillas	
436		Montones	
437		Naguabo-Humacao PS No. 3	
438		Naguabo-Humacao Trunk PS No. 2	
439		Olimpic	
440		Park Hurst	

## Appendix F

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
441		Patagonia
442		Portal de Las Piedras
443		Pueblito del Rio
444		Rio Blanco Heights
445		Schering-Plough
446		Schering-Plough 2
447		Valle Piedras
448		Villa del Rio
449		Villa Delicias
450		Villas de Candelero
451		Villas de Humacao
452		Villas de San Cristobal
453		Aguadilla Avenue
454		Bomberos
455		Corchado
456	<b>Isabela</b>	Industrial
457		Isla Azul
458		Villa Pesquera
459		Vista Isabela PS
460		Industrial Travenal
461	<b>Jayuya</b>	La Monserrate
462		Santa Clara
463		Boqueron
464		El Valle
465		Estancias del Parra 2
466		Estancias del Parra I
467		Extension El Valle
468		Fomento
469	<b>Lajas</b>	Jardines de Lajas
470		La Parguera II
471		La Parguera Nueva
472		Palmerejo 2
473		Playita Rosada
474		Submarino
475		Villa Taina
476		Altamira
477		Brisas de Lares (Jardines de Lares)
478		Centro Operaciones
479		Escuela Bo. Piletas
480		Lares Mills
481	<b>Lares</b>	Montellano
482		Palmas del Sol
483		Planta Vieja (Lares)
484		Viera
485		Villa Borinquen
486		El Hospital
487		Jardines
488	<b>Las Marías</b>	Las Bambuas
489		Maravilla Sur I
490		Maravilla Sur II
491		Emajagua
492	<b>Maunabo</b>	Talante
493		Villas del Faro
494		Anasco
495		Ballaja

## Appendix F

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>	
496	Mayagüez	Cabo Rojo Pueblo (Main)	
497		Caracoles & Pinales	
498		Centro Renal	
499		Colegio	
500		Colombia	
501		Concepcion	
502		Concordia (Boca Morena)	
503		Confresi (Sierra Linda)	
504		Coqui Bajura	
505		El Deportivo	
506		El Hoyo	
507		El Remanso	
508		Girasol	
509		Guanajibo Homes Pump Station	
510		Hacienda Constancia	
511		Haciendas del CLub	
512		Jardines de Mayaguez	
513		Josefa	
514		La 15	
515		La Garita	
516		Lavadero Nueva 1	
517		Lavadero Nueva 2	
518		Lift Station	
519		Llavat	
520		Mansiones de Cabo Rojo	
521		McDonalds	
522		Monte Grande	
523		Periche	
524		Perle Du Mer	
525		Poblado Rosario	
526		Pozo Hondo	
527		Puerto Real I	
528		Puerto Real II	
529		Pump Station 2	
530		Pump Station 3	
531		Ramirez de Arellano	
532		Rio Mar	
533		Roosevelt	
534		Sabalos (Main Pumping Station)	
535		Santurce	
536		Sultana	
537		Torre Marsella	
538		Valles de Añasco	
539		Vistas del Rio	
540		Morovis	Cruz Rosario LS
541			Las Cumbres (Buena Vista)
542			Morovis Pueblo
543			Palmas del Sur
544			Praderas de Morovis Sur
545			Torrecillas I
546			Torrecillas II
547			Torrecillas III
548			Torrecillas IV
549	Torrecillas V		
550	Torrecillas VI		

## Appendix F

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
551		Villas del Norte
552	Naranjito	Achiote
553		Jardines de Naranjito
554	Orocovis	Barros I
555		Barros II
556		Orocovis
557		Villa Cooperativa
558	Patillas	El Bajo
559		La Felicita (Valles de Patillas)
560		La Providencia
561		Portales de Jacaboa
562		Soymar
563	Peñuelas	Plaza Peñuelas
564		Plaza Peñuelas 2
565		Rio Sol
566		URB. Miramonte
567	Ponce	Alta Vista
568		Camino del Sur
569		Constancia (Caracoles) PS
570		Emilia Bonilla/Escuela La Vega
571		Guayabal
572		Guayabal II
573		Industrial Sabanetas
574		Jagueyes
575		Julio Enrique Monagas
576		La Ceiba
577		Las Americas
578		Las Delicias
579		Las Lomas
580		Leonardo Santiago
581		Los Caobos
582		Merceditas
583		Monte Sol
584		Pastillo
585		Perla del Sur
586		Ponce RWWTP
587		Punta Carenero
588		Regional Center (El Tuque)
589		Salazar
590		Santa Marta
591		Valle Alto
592		Valle Real
593		Villa Grillasca
594		Villa Hucares
595		Amelia
596		Andalucia
597		Bo. Obrero Vacuum
598		Buen Consejo
599		Caney
600		Cantera Air Vacuum
601	Ciudad Universitaria	
602	Colinas de Cupey	
603	Colinas de Montecarlo	
604	Constitucion	
605	Covadonga	

## Appendix F

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>	
606	Puerto Nuevo	Cupey Gardens	
607		El Capa	
608		El Coqui	
609		El Morro	
610		El Vigia	
611		Escambron	
612		Extension Villa Andalucia	
613		Eyectores Isla Verde	
614		Fairview 1	
615		Fairview 2	
616		Fairview 3	
617		Gardenville	
618		Highland Park	
619		Hill Brothers	
620		Hotel Isla Verde (Holiday Inn)	
621		Huyke	
622		Isla Verde Villamar	
623		Jardines de Trujillo Alto	
624		Joffre	
625		La Campina	
626		La Marina	
627		La Puntilla	
628		La Rabua	
629		Labra	
630		Las Cumbres	
631		Las Margaritas Apt	
632		Lomas de Trujillo Alto	
633		Los Corosos	
634		Los Laureles	
635		Los Lirios	
636		Martin Pena (Tokio)	
637		Mirador Las Casas	
638		Monte Brisas	
639		Monte Real	
640		Montehiedra 1	
641		Montehiedra 2	
642		Nemesio Canales	
643		Paseos de San Juan	
644		Perla	
645		Prado Alto	
646		Pueblo Seco	
647		Rincon Espanol	
648		San Fernando	
649		San Gerardo	
650		Santa Clara	
651		UM 49	
652		Villa Andalucia	
653		Villa Capri	
654		Villa del Sol	
655		Villas El Paraiso	
656		Vista Alegre	
657		Río Grande Estates	Coco Beach
658			Río Grande Estates
659			Rio Grande Loiza (R. G. Estates)
660			Rio Grande States

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
661	San Germán	El Poli
662		El Real
663		Fomento
664		La Maquina I
665		La Maquina II
666		La Nueva Salamanca
667		Las Guaras
668		Minillas
669		Quintas del Rey
670		Reparto Universitario
671		Sabana 1
672		Sabana 2
673		Sabana Eneas
674		Sabana Grande
675		Santa Ana
676		Santa Ana (Mansiones de Sabana Grande)
677		Santa Marta (Riverside)
678	San Sebastián Nueva	Comunidad Gonzalez 2
679		Fomento-Avon
680		Gonzalez 1
681		Los Alamos
682	Parque	
683	San Sebastián Vieja	Villa Sofía Nueva
684		Villa Sofía Vieja
685	Santa Isabel	Coamo Main
686		Jacaranda
687		Jaucas
688		Niagras
689		Playa Cortada
690		Portal La Reina
691		Praderas del Sur
692		Provincias del Rio
693		Puerto Arturo
694		Quintas de Coamo
695		San Idelfonso
696		Santa Ana
697		Valle Arriba
698		Valle Escondido
699		Villa Pulga
700	Toa Alta	Green Valley
701		Jardines de Toa Alta
702		Mansiones de Rio Lajas
703		Pina (El Cementerio)
704		Veredas del Rio
705		Villa Matilde
706	Unibón	Unibon 1
707		Unibon 2
708		Unibon 3
709		Unibon 4
710		Unibon 5
711	Utuaado Urbana	Alturas de Utuaado
712		Calle Progreso
713		Colegio Regional
714		La Playita
715		Perez Matos

## Appendix F

List of WWTP Pump Stations covered by Consent Decree (as of Date of Lodging)

Num.	WWTP	WWPS Name <sup>1</sup>
716		San Jose
717		Santa Clara
718		Urbanizacion Cabrera
719		Utuaado Nueva Salto Abajo LS
720		Corea
721		Dorado Industrial Park
722		Extension Santa Ana
723		General Electric (Industrial GE)
724		Los Montes
725		PumpStation3Maricao
726		Santa Ana
727		Valle Dorado
728		Vega Alta GE LS
729		Verde Luz
730		Alturas de Vega Baja
731		Brazilia
732		Ciudad Real
733		El Rosario
734		Guarcio Viejo
735		Jardines de Vega Baja
736		Ojo de Agua
737		San Demetrio
738		Villa La Playa LS
739		Villa Los Pescadores
740		Villa Pinares
741		Casa de Playa
742		Casa de Playa 2
743		Comunidad Esperanza
744		Comunidad Esperanza 2
745		Florida
746		Fomento - Vieques
747		Jardines de Vieques
748		Jardines de Isabel II
749		Reparto Lucila Franco
750		Rieckhoff
751		Sun Bay
752		Tortuguero
753		Buena
754		Comunas
755		Dr. Berrios
756		Jaime C. Rodriguez
757		Limonas
758		Trinidad
759		Winston
760		Barinas Nueva
761		Jacanas
762		Lluberias (Susua)
763		Luchetti
764		Montblanc
765		Oasis (Belgica)
766		Palomas
767		San Francisco
768		Villas Del Cafetal

<sup>1</sup> Based on PRASA's GIS Database updated as of October 2014.



## APPENDIX G

## Appendix G

### Minimum Requirements to Develop a S2OMP for the Puerto Nuevo Regional Wastewater Treatment Plant Sewer System

The Sewer System Operation and Maintenance Program (S2OMP) defines the standard operation and maintenance activities, wherein approaches, plans and execution must continually adapt to the experience gained in the field. The elements of the S2OMP are understood to be independent – if one element requires modification, that modification will not invalidate the other elements of the S2OMP. Pursuant to Section IX of this Consent Decree (CD); Sewer System Programs with respect to the Puerto Nuevo Regional Wastewater Treatment Plant Sewer System and the Puerto Rico Aqueduct and Sewer Authority (PRASA) shall develop a S2OMP in compliance with the following minimum requirements:

#### 1. Goals

PRASA shall establish the goals of the S2OMP for the Puerto Nuevo Wastewater Treatment Plant Sewer System. Among others, the following goals shall be included as part of PRASA's S2OMP:

- a. Properly manage, operate, and maintain the Sewer System.
- b. Manage the Sewer System infrastructure to reduce equipment and operational failures and extend the life of its components.
- c. Maximize capacity to collect and convey base flows and design peak flows from all parts of the Sewer System.
- d. Prevent, eliminate and respond to Sanitary Sewer Overflow (SSO) events, dry weather overflows and control Combined Sewer Overflows from the Sewer System.
- e. Protection of the public health and the environment.

#### 2. Sewer System Characterization

- a. Develop and implement plans to complete reconnaissance activities for characterization of the Sewer System components.
- b. Develop and update current maps with geographic information system (GIS) technologies showing selected features such as but not limited to:

Collection System	Treatment Facilities	Pump Stations
<ul style="list-style-type: none"> <li>▪ Pipe type (e.g. gravity main, force main, trunk sewer, lateral sewer, interceptor sewer)</li> <li>▪ Pipe diameter</li> <li>▪ Pipe material</li> <li>▪ Flow direction</li> </ul>	<ul style="list-style-type: none"> <li>▪ Name</li> <li>▪ Location coordinates</li> <li>▪ Boundaries from service areas</li> </ul>	<ul style="list-style-type: none"> <li>▪ Name</li> <li>▪ Operational area</li> <li>▪ Municipality</li> <li>▪ Location coordinates</li> <li>▪ Number of pumps</li> <li>▪ Flow (in GPM)</li> </ul>

<ul style="list-style-type: none"> <li>▪ Sewer manholes</li> <li>▪ Boundaries from service areas</li> </ul>		
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### 3. Description of S2OMP Management

- a. Describe the organization structure with a brief description of duties.

### 4. Planning for Operation and Maintenance (O&M) Activities:

- a. Budgeting processes
- b. Equipment and parts procurement processes
- c. Staffing
- d. Training
- e. Health and safety
- f. Customer service

### 5. Description of current and future planned legal authorities for the following S2OMP Elements:

- a. Pretreatment Program:
  - i. Fats, Oils, and Grease (FOG) Control Element
- b. Removal of illegal connections (e.g., illegal stormwater or industrial connections to the Sewer System or connections from the Sewer System to a MS4 System)
- c. New connections into the Sewer System
- d. Sewer System design and construction
- e. Environmental compliance

### 6. S2OMP Activities

PRASA shall develop the following elements to implement associated S2OMP activities:

#### A. Sewer System Management

- a. An information management system capable of managing the following:
  - i. SSO/CSO notifications pursuant to terms and conditions of the Puerto Nuevo RWWTP NPDES permit, including CSO signage
  - ii. Sewer System maintenance documentation, such as purchase orders, corrective work orders, and other critical maintenance-related activities
  - iii. S2OMP supporting documentation including:
    1. Identification of areas of concern
    2. Tracking location and frequency of SSOs, DWOs from CSO Outfalls and any other Unauthorized Discharge occurrences in areas of concern
    3. Tracking location, nature, status and date of repair and/or efforts to reduce overflow frequency (e.g., illicit discharge disconnection, leak repair) or repair impediments to sewer function, including proper identification of capital improvements projects

4. Tracking of project schedule and status for the identified areas of concern
- b. Design and performance provisions:
  - i. Sewer and pump requirements and standards for new projects
  - ii. Inspection procedures and specifications for new projects
- c. S2OMP priority scheduling methodology development and implementation
- d. S2OMP performance tracking

**B. Sewer System Operation**

- a. Sewer System Maintenance Crews (SSMCs) for the Sewer System
- b. Asset Prioritization and Rehabilitation Identification Element
- c. Sewer System Reconnaissance Element:
  - i. Cleaning
  - ii. Camera survey (pole-mounted zoom camera, closed circuit television (“CCTV”) or similar)
  - iii. Sewer System smoke and dye testing
  - iv. Manhole inspection (pole-mounted zoom camera or similar)
  - v. Interconnection identification and communication protocol
  - vi. Identification of repairs necessary to sustain sewer function
  - vii. Regulator, tide gate, and weir inspection
- d. Sediment and Solid Material Management
- e. Corrosion Control Element for the Sewer System, addressing as appropriate:
  - i. Hydrogen sulfide assessment and control
- f. Coordination with the Pump Station Preventive/Corrective O&M Program, including, but not limited to:
  - i. Discharge pipelines (e.g., force main lines) inspection and maintenance program
- g. Coordination with the Pretreatment FOG Monitoring and Control Program
- h. Pollution Prevention Practices
- i. Sewer System Backups (into residences/commerce) Element
- j. Fleet and Equipment Operation and Maintenance Element
- k. Easement Clearing Element
- l. Equipment Maintenance/Storage Program
- m. Sewer System Repair and Replacement Element
- n. Sewer System impediments element including:
  - i. Defined protocols for triage of identified impediments
  - ii. Defined protocols for communicating the observed impediments
  - iii. Defined protocols for implementing repair and replacement acknowledging that complex repairs may be handled as a capital improvement project

- iv. Develop capital improvement project and schedule for construction when the protocols make such conclusion
- o. Equipment and Replacement Parts Inventory

**C. Sewer System Maintenance**

- a. Sewer System Maintenance Program, including, but not limited to:
  - i. Sewer System Cleaning Element (with a schedule for cleaning based on the priority scheduling methodology described in the S2OMP)
  - ii. SSO/CSO structure cleaning, maintenance, and overflow mitigation
  - iii. Regulator, tide gate, and weir maintenance activities
  - iv. Sewer System and overflowed solids, floatables and debris control and disposal protocols
  - v. Sewer System stream crossing maintenance and repair activities
- b. Cleaning equipment maintenance activities
- c. Coordinate unplanned maintenance with the SRCP activities

**7. S2OMP Monitoring, Measurement and Tracking**

- a. Protocols and activities for monitoring, measurement, and evaluation of S2OMP implementation and its effectiveness
- b. Activities to generate S2OMP updates and modifications, including recommended time frames to update plans based on experience gained in the field
- c. Self-audits of the S2OMP

**8. SSO/CSO Response Plan**

- a. Reference the SRCP in this Consent Decree
- b. Modifications to the current Sanitary Sewer Overflows Notification and Response Plan to explicitly include both SSOs and CSOs, with activities for:
  - i. Awareness for public
  - ii. Response
  - iii. Official Notifications to Federal and State Agencies
  - iv. Training to Responders/Compliance Officials
  - v. Emergency Operations for SSOs/CSOs (Emergency Preparedness and Response)

**9. System Evaluation and Capacity Assurance Plan**

- a. PRASA will perform capacity evaluations and assurance planning for the Sewer System, including:
  - i. Sewer System hydraulic modeling activities to refine current models

- ii. Inflow/infiltration management activities including identifying and repairing inflows/infiltrations (these activities shall be incorporated in a future I/I study, as approved by EPA)
- iii. Sewer System capacity monitoring and assessment activities (including wet weather assessments)

**10. S2OMP Communication** – PRASA shall establish how the S2OMP will be communicated to the pertinent personnel, including, but not limited to:

- a. Managers
- b. Supervisors
- c. S2OMP crews
- d. Contractors
- e. Federal and local governmental entities concerning any capital improvement projects that result from the S2OMP implementation.

## APPENDIX H

**Appendix H**

## Base List of Remedial Measures to address Washwater Discharges at WTPs

Region	Facility	Project Description	Expected Compliance Date	Investment Cost
East	Ceiba Sur WTP	Eliminate plant with the new Valenciano WTP or alternate project to eliminate plant.	Dec 2020	\$ 58,410,000
East	Jiménez WTP	Construct a new STS, or connect and eliminate system with Morovis/El Yunque WTP.	Dec 2017	\$ 1,123,000
North	Morovis Sur WTP	Rehabilitation of Morovis Sur WTP, Phase II (Rehabilitation of raw water intake, filter rehab and STS).	Dec 2020	\$ 7,383,000
West	Guajataca	Improvements to the Guajataca WTP-Rehabilitation of two modular package plants including the sludge treatment system.	Jul 2020	\$ 3,095,000
West	La Máquina WTP	La Máquina WTP elimination through the transmission pipeline from the Maginas WTP.	Mar 2020	\$ 3,503,000
West	Rocha WTP	Rocha WTP elimination through the transmission pipeline from Isabela WTP.	Oct 2020	\$ 5,665,000

**Total: \$ 79,179,000**



## APPENDIX I

Order ID	Region	Service Area	Municipality	Project Description	Classification	Proposed Completion Date	Comments
1	West	San Sebastián	San Sebastián	Perform I/I Corrections in the Collection System.	Wastewater	2022	Project was moved from the WW Base List.
2	North	La Pica	Jayuya	Provide UV or other approved technology for Crypto removal credit.	Water	2022	LT2 projects were all grouped and moved to rankings as requested by EPA and DOH.
3	North	Canalizo	Jayuya	Provide UV or other approved technology for Crypto removal credit.	Water	2022	
4	North	Esperanza	Arecibo	Provide UV or other approved technology for Crypto removal credit.	Water	2022	
5	South	Duey	Yauco	Provide UV or other approved technology for Crypto removal credit.	Water	2023	
6	East	Guayabota	Yabucoa	Provide UV or other approved technology for Crypto removal credit.	Water	2023	
7	South	Malpaso	Peñuelas	Provide UV or other approved technology for Crypto removal credit.	Water	2023	
8	East	Barrancas	Barranquitas	Provide UV or other approved technology for Crypto removal credit.	Water	2023	
9	North	Lares Nueva (Espino)	Lares	Provide UV or other approved technology for Crypto removal credit.	Water	2023	
10	Metro	Cubuy	Canóvanas	Provide UV or other approved technology for Crypto removal credit.	Water	2024	
11	North	Mameyes Limón	Jayuya	Provide UV or other approved technology for Crypto removal credit.	Water	2024	
12	West	Bucarabones	Maricao	Provide UV or other approved technology for Crypto removal credit.	Water	2024	
13	North	Sanamuerto	Orocovis	Provide UV or other approved technology for Crypto removal credit.	Water	2024	
14	East	La Boca	Barranquitas	Provide UV or other approved technology for Crypto removal credit.	Water	2024	
15	North	Roncador	Utuaado	Provide UV or other approved technology for Crypto removal credit.	Water	2024	
16	North	Mameyes de Utuaado	Utuaado	Provide UV or other approved technology for Crypto removal credit.	Water	2025	
17	North	Indiera Alta	Lares	Provide UV or other approved technology for Crypto removal credit.	Water	2025	
18	South	Guilarte	Adjuntas	Provide UV or other approved technology for Crypto removal credit.	Water	2025	
19	East	Cubuy Este (Maizales)	Naguabo	Provide UV or other approved technology for Crypto removal credit.	Water	2025	
20	Metro	Barrio Nuevo	Bayamón	Provide UV or other approved technology for Crypto removal credit.	Water	2025	
21	South	Matuyas	Maunabo	Provide UV or other approved technology for Crypto removal credit.	Water	2025	
22	North	Vega Alta	Vega Alta	Provide sludge management system.	Wastewater	2027	
23	South	Guayanilla	Guayanilla	Execute recommendations of the Technical and Cost Evaluation for the consolidation of the Peñuelas and Guayanilla WWTPs to the Yauco WWTP.	Wastewater	2027	This project depends on the completion of the Guayanilla project included in the WW Base List.
24	East	Yabucoa	Yabucoa	Improvements Project, Divert to Humacao WWTP or Convert to a Zero Discharge Facility. Improvement Project: Replace the influent pump. Repair the comminutor. Increase solids dewatering capacity. Improve chemical phosphorus removal system automation control. These improvements are not necessary if the flow is transferred to Humacao WWTP.	Wastewater	2027	
25	East	Aguas Buenas	Aguas Buenas	Improvement Project: Repair and re-level thickener tank overflow weirs and BFP rehabilitation, or Divert to Caguas WWTP.	Wastewater	2028	
26	North	Toa Alta	Toa Alta	Retrofit existing facility to achieve phosphorus removal or divert the flow from the existing Toa Alta WWTP to the Bayamón WWTP or the Dorado WWTP.	Wastewater	2028	
27	Metro	Puerto Nuevo	San Juan	Install separate sewer line at the Ponce de León Avenue from the Auxilio Mutuo Hospital to the Mercantil Plaza.	Wastewater	2028	
28	East	Barranquitas	Barranquitas	Construct a new STS.	STS	2029	
29	East	Cayey Urbano	Cayey	Construct STS.	STS	2029	

Order ID	Region	Service Area	Municipality	Project Description	Classification	Proposed Completion Date	Comments
30	East	Humacao-Las Piedras	Humacao	Construct STS.	STS	2029	
31	North	Corozal	Corozal	Construct new STS.	STS	2029	
32	North	Frontón	Ciales	Construct STS.	STS	2029	
33	North	Corozal Negros	Corozal	Increase holding tank and thickener capacity. Increase drying beds capacity or provide alternative dewatering technology. Add a decanting system.	STS	2029	
34	West	Aguadilla (Montaña)	Aguadilla	Increase pumping capacity of holding tank. Increase thickener capacity. Provide settling tanks with technology for sludge removal.	STS	2029	
35	East	Rio Blanco	Naguabo	Increase holding tank capacity. Increase drying beds capacity; or provide alternative technology for dewatering.	STS	2029	
36	East	Parcelas Borinquen	Caguas	Divert to Caguas WWTP or Improvement Project: Provide STS and repair corrosion on package plants.	Wastewater	2029	
37	West	Mayagüez	Mayagüez	Mayagüez WWTP Corrosion Prevention Maintenance.	Wastewater	2030	
38	East	Gurabo	Gurabo	Provide a second belt filter press or alternative technology for dewatering process.	STS	2030	
39	East	Caguas Sur	Caguas	Construct a new STS at new WTP or construct a new STS at existing plant.	STS	2030	
40	North	Rio Arriba	Arecibo	Construct STS.	STS	2030	
41	North	Utua	Utua	Complete rehabilitation STS.	STS	2030	
42	North	Canalizo	Jayuya	Construct STS (limited space available, needs land acquisition).	STS	2030	
43	North	Sanamuerto	Orocovis	Complete Rehabilitation of STS.	STS	2030	
44	North	Arecibo	Arecibo	Construct STS.	STS	2030	
45	North	Sabana Grande (Utua)	Utua	Construct STS (limited space available, needs land acquisition).	STS	2030	
46	North	Indiera Alta	Lares	Construct STS (limited space available).	STS	2030	
47	North	Jayuya	Jayuya	Construct STS.	STS	2030	
48	North	Lares	Lares	Construct STS.	STS	2030	
49	North	Mameyes Abajo (Utua)	Utua	Construct STS (requires land acquisition).	STS	2030	
50	North	Mameyes Arriba (Limón)	Jayuya	Construct STS (requires land acquisition).	STS	2030	
51	North	Santa Isabel (Utua)	Utua	Construct STS.	STS	2030	
52	South	Adjuntas Vieja (Olimpia)	Adjuntas	Construct STS.	STS	2031	
53	South	Guaraguao (Ponce)	Ponce	Improvements to the Guaraguao WTP including STS.	STS	2031	
54	South	Rancheras	Yauco	Construct STS (needs land acquisition).	STS	2031	
55	South	Villalba (Old)	Villalba	Construct STS.	STS	2031	
56	Metro	Sergio Cuevas	Trujillo Alto	Increase capacity of dewatering process. Provide roof over sludge drying beds.	STS	2031	
57	North	Vega Baja	Vega Baja	Provide settling tanks with technology for sludge removal. Increase thickener capacity. Refurbish the vacuum pumps of the drying beds.	STS	2031	

Order ID	Region	Service Area	Municipality	Project Description	Classification	Proposed Completion Date	Comments
58	South	Peñuelas	Peñuelas	Provide settling tanks with technology for sludge removal. Increase Drying beds capacity or provide alternative technology for dewatering.	STS	2031	
59	South	Ponce Nueva	Ponce	Provide settling tanks with technology to remove sludge on a daily basis. Operate the holding tank automatically. Install cover (roof) over drying beds.	STS	2031	
60	West	Miradero	Mayagüez	Increase thickener pumping and thickening area capacity. Increase drying beds capacity or provide alternative technology for dewatering. Provide settling tanks with technology to remove sludge on a daily basis.	STS	2032	
61	West	Maricao	Maricao	Increase holding tank capacity. Increase drying beds capacity or provide alternative technology for dewatering.	STS	2032	
62	West	San Sebastián	San Sebastián	Increase holding tank capacity. Increase thickener capacity. Replacing the existing BFP with other one with more capacity or provide alternative technology for dewatering.	STS	2032	
63	East	El Duque	Naguabo	Increase holding tank. Install a sludge removal system to settling tanks. Provide a system (such as floating pump or a decanting system) to transfer as much clean water from the settling tanks to the filters previous to their cleaning.	STS	2032	
64	North	Ciales Cordillera	Ciales	Increase thickener tank capacity. Increase dryings beds capacity or provide alternative dewatering technology.	STS	2032	
65	North	Hatillo-Camuy	Hatillo	Increase holding tank and thickner capacity. Increase drying beds capacity or provide alternative dewatering technology.	STS	2032	
66	West	Monte del Estado	Maricao	Rehabilitate or construct new STS.	STS	2032	
67	South	Rio Prieto (Duey)	Yauco	Rehabilitate or construct new STS.	STS	2032	
68	North	Frontón	Ciales	Expand plant with the installation of an additional module of 0.5 MGD, including distribution tank and telemetry.	Water	2032	
69	East	Culebras Alto	Cayey	Install modules to compensate with the current demand.	Water	2032	
70	East	Aibonito	Aibonito	Retrofit existing facility to comply with nutrient removal.	Wastewater	2032	
71	South	Adjuntas	Adjuntas	Corrosion Control Improvements.	Wastewater	2032	
72	North	Arecibo	Arecibo	Rehabilitate BFP and leveling of thickener's overflow weirs.	Wastewater	2032	
73	Metro	Canóvanas New	Canóvanas	Replace drying beds floor tiles and gates, 4 (117 x16).	STS	2032	
74	South	Matuyas	Maunabo	Rehabilitate STS.	STS	2032	
75	Metro	Enrique Ortega	Toa Alta	Construct a recovery basin for filter backwash or alternative increase holding tank capacity. Increase thickener capacity and dewatering process capacity.	STS	2032	
76	Metro	Guaynabo	Guaynabo	Construct a recovery basin for filter backwash or alternative increase holding tank capacity. Increase thickener capacity. Increase drying beds capacity or install alternative technology for dewatering process. Replace or repair sludge drying beds floor tiles.	STS	2033	
77	East	Barrancas	Barranquitas	Increase drying beds capacity; or provide alternative technology for dewatering process.	STS	2033	
78	East	Luquillo (Sabana)	Luquillo	Increase drying beds capacity or provide alternative technology for dewatering process.	STS	2033	
79	East	San Lorenzo (Cerro Gordo)	San Lorenzo	Increase SHT/ Thickener capacity. Provide conventional settling tanks with sludge removal capacity. Increase drying beds capacity or provide alternative technology for dewatering.	STS	2033	

Additional Remedial Measures for WWTPs and WTPs subject to Prioritization

Order ID	Region	Service Area	Municipality	Project Description	Classification	Proposed Completion Date	Comments
80	North	Jaguas Pesas (Ciales)	Ciales	Provide settling tanks with sludge removal capacity. Refurbish holding tank and operate automatically. Increase SHT/ Thickener capacity. Increase Drying beds capacity or provide alternative technology for dewatering.	STS	2033	
81	West	Culebrinas	Aguadilla	Increase pumping capacity of wastewater equalization tank, sludge holding tank and filter to waste tank. Increase thickener capacity.	STS	2033	
82	East	Aguas Buenas	Aguas Buenas	Increase holding tank capacity. Increase thickener capacity. Increase drying beds capacity or provide alternative technology for dewatering.	STS	2033	
83	East	Cidra	Cidra	Construct a holding tank.	STS	2033	
84	East	Yabucoa	Yabucoa	Provide settling tanks with technology for sludge removal. Increase holding tank volume. Replace or add another thickener with larger diameter to handle the 90th percentile condition. Increase drying beds capacity or provide alternative technology for dewatering.	STS	2033	
85	North	Almirante Sur	Vega Baja	Increase holding tank capacity.	STS	2033	
86	West	Ponce de León	Mayagüez	Existing sludge removal equipment in the settling tank must be refurbished. Provide a sludge removal system like the one existing in the settling tank to the other one. Increase holding tank capacity.	STS	2033	
87	West	Sabana Grande	Sabana Grande	Increase holding tank capacity.	STS	2033	
88	East	Quebrada Grande	Juncos	Improve the sludge distribution of the drying beds by changing the sludge discharge location. Increase holding tank capacity. Provide roof to drying beds.	STS	2033	
89	West	Caín Alto	San Germán	Install a sludge removal systems to settling tanks. Provide a system (such as floating pump or a decanting system) to transfer as much clean water from the settling tanks to the filters previous to their cleaning.	STS	2033	
90	East	Barranquitas	Barranquitas	Retrofit existing facility to achieve phosphorus removal.	Wastewater	2033	
91	North	Naranjito	Naranjito	Retrofit the existing facility to achieve phosphorus removal.	Wastewater	2033	
92	North	Barceloneta	Barceloneta	Construction of a Disinfection System	Wastewater	2033	
93	East	Vieques	Vieques	Determine impact of corrosion on package plant structural integrity.	Wastewater	2033	
94	West	Isabela New	Isabela	Thickener repairs.	STS	2033	
95	West	San Sebastián New	San Sebastián	Overall Improvements: increase ventilation system of the chlorine building and improvements to the sludge management system.	Wastewater	2033	
96	North	La Pica	Jayuya	Eliminate WTP or rehabilitate the STS.	STS	2033	
97	West	Isabela	Isabela	Perform I/I Corrections in the Collection System.	Wastewater	2034	
98	Metro	Bayamón	Bayamón	Perform I/I Corrections in the Collection System.	Wastewater	2034	
99	East	Caguas	Juncos	Perform I/I Corrections in the Collection System.	Wastewater	2034	
100	North	Unibón	Morovis	Perform I/I Corrections in the Collection System.	Wastewater	2034	

**Note:** For the definitions and methodology on the scoring criteria used in this Table , please refer to Appendix E: PRASA's Prioritization System Description.

## APPENDIX J

**Appendix J**

## Base List of Remedial Measures for WWTPs

Region	Facility	Project Description	Expected Compliance Date	Investment Cost
East	Rio Grande Estates	Divert facility to the private CBUC plant or to the Carolina/Fajardo WWTP	Dec 2021	\$ 3,340,000
East	Caguas	Aguas Buenas/Caguas Sanitary Trunk Sewer Collection System - Phase 3	Dec 2021	\$ 12,096,000
Islandwide	Islandwide	Actualization of the Islandwide Sewer System Evaluation Study (PSSSEP) from 2006 Consent Decree.	Dec 2016	\$ 500,000
Metro	Puerto Nuevo	Perform a study to determine the condition of the land portion of the facility's outfall. Install flow proportional chlorination equipment	Dec 2019	\$ 21,578,000
Metro	Puerto Nuevo	Installation of a Degritter System	Dec 2019	
Metro	Carolina	Installation of new intake screens, new grit removal system, improvements to the sludge management system and general electrical rehabilitation	Completed	\$ 12,068,000
Metro	Bayamón	Overall Improvement Project: Influent Headworks, Influent Pumps, Grit Removal System and Clarifier's Traveling Bridges	Dec 2018	\$ 5,324,000
Metro	Puerto Nuevo	San Jose Trunk Sewer Rehabilitation -900 mts and 66" diameter	Dec 2015	\$ 7,469,516
Metro	Puerto Nuevo	Rehabilitation of the Puerto Nuevo WWTP Sludge Drying Beds	Dec 2018	\$ 1,200,000
North	Corozal	Retrofit existing facility to achieve nutrient removal	Dec 2020	\$ 9,175,000
North	Toa Alta Heights	I/I Study	Dec 2015	\$ 500,000
South	Alturas de Orocovis	Divert the flow from the facility to the Orocovis WWTP	Dec 2016	\$ 5,725,000
South	Guayanilla	Technical Cost Evaluation for the consolidation of the Peñuelas and Guayanilla WWTPs to the Yauco WWTP	Dec 2016	\$ 50,000
South	Patillas	Divert facility to the Guayama Regional WWTP	Dec 2021	\$ 23,006,000
South	Peñuelas	Technical Cost Evaluation for the consolidation of the Peñuelas and Guayanilla WWTPs to the Yauco WWTP	Dec 2016	\$ 50,000
South	Ponce	Phase II: Rehabilitation of Trunk Sewer (28 km)	Dec 2019	\$ 29,382,000
West	Isabela	Diversion of the Isabela WWTP discharge to Costa Isabela Resort	Dec 2020	\$ 7,488,000

**Total: \$ 138,951,516**

## APPENDIX K



## **Appendix K**

### **Minimum Requirements for Development of a Sewer System Evaluation Plan for I/I Studies**

In accordance with Section VII of the Decree, PRASA shall develop and implement a Sewer System Evaluation Plan (SSEP) for the Puerto Nuevo Regional Wastewater Treatment Plant's Sewer System. At minimum, the SSEP shall provide for the following:

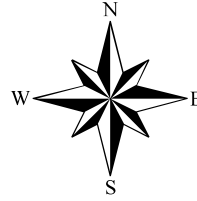
- (1) Selection of adequate flow performance indicators for each case. Possible indicators may include flow per population, flow per length of sewer, wet weather flow vs. dry weather flow ratio, peak flow per inch of rain per drainage area, or other relevant measures.
- (2) Determination of system-specific performance targets that indicate excessive infiltration and/or inflow and would trigger evaluation activities. Determination of performance targets will be consistent with the intent of 40 CFR 35.2120.
- (3) Division of the SSS in small subsystems and establishment of the sewer-flow in each one in order to compare them with the performance targets previously defined. Then it shall be identified the subsystems that exceed the performance targets.
- (4) In sub-systems exceeding the I/I performance targets, whether infiltration, inflow, or both, identification of those infiltration and inflow sources that should be field investigated. For subsystems that do not exceed performance targets, no further investigation will be required.
- (5) In sub-systems exceeding the I/I performance targets, implementation of field investigations to locate the sources of infiltration and/or inflow. Field investigations will be conducted incrementally to screen out those areas that do not contribute excessive I/I and to focus more detailed investigations to areas contributing excessive flows. Field investigations may include smoke testing, dye studies, flow monitoring and physical or zoom/CCTV camera inspections.
- (6) While performing field investigation for the Sewer System evaluations, PRASA shall identify, in addition to any I/I problem, any other problem encountered such as, but not limited to, clogged sewer lines, collapsed sewer lines, root problems and grease accumulation.
- (7) Based on the results of field investigations conducted pursuant to this appendix, PRASA shall complete, an evaluation of cost-effective measures to reduce or control excessive flows and to address any other problem identified pursuant to (6) above. Along with the Sewer System Repair Plan (SSRP), PRASA shall submit to EPA a

summary of all of the required evaluations, including those where no cost effective alternative has been identified.

- (8) For those systems where cost-effective measures can be implemented, PRASA shall develop a SSRP and submit it to EPA for comments.

## APPENDIX L

# Puerto Nuevo Sewer System High Priority Areas



Puerta de San Juan

La Puntilla

Paseo Princesa

Cortes Industrial

Bda. Figueroa

Bolivar

Pavia

Los Angeles

Constitution Bridge  
Emergency  
Wastewater  
Exit

Del Parque

Puerto Nuevo WWTP

Mercantil Plaza

Plaza Las Americas  
Emergency  
Wastewater  
Exit

### Legend

- Old San Juan
- Cortes Industrial
- Bolivar
- Bda. Figueroa
- Condado, Ocean Park, Villa Palmeras and Isla Verde
- Mercantil Plaza



Note: Areas apply only to components of the Puerto Nuevo Sewer System

## APPENDIX M

## Appendix M

### Minimum Requirements to Develop a FOG Control Program

Pursuant to Section IX of the CD (Sewer System Programs with Respect to the Puerto Nuevo Regional Wastewater Treatment Plant Sewer System) PRASA shall develop a Fats, Oil and Grease (FOG) Control Program, in compliance with the following minimum requirements:

1. **Program Objectives/Goals/Measures** – Establish clear and measureable objectives/goals.
  - a. Grease Control Awareness Program
    - i. Food Service Establishment (FSE)
    - ii. Public Education
  
2. **Definitions** – PRASA shall provide all definitions and acronyms of interest used in establishing the FOG Control Program.
  
3. **Legal Authority** – The legal authority to control the discharge of FOG into the Sewer System, including the ability to conduct inspections, to establish guidelines to require installation and maintenance of FOG Control Devices and issue enforcement.
  - a. Enforcement Procedures – An enforcement program, including specific and tiered enforcement mechanisms, directed to achieving FOG Generators' compliance with the PRASA's FOG Control Program. The enforcement program shall include the requirement of compliance plans and/or the issuance of penalties, as appropriate.
  
4. **General Criteria**
  - a. FSE List – Prepare a list of known FSEs, including a description of their FOG generating processes and update the list as necessary.
  - b. FOG Control Devices – Establishment of guidelines for sizing, type and installation, and best management practices, as well as on-site recordkeeping, reporting, cleaning frequency, use of additives, and disposal requirements in accordance with Legal Authority.
  - c. Inspections – Establishment of inspection protocols, including scheduling, inspection report forms and inspection record keeping (e.g., disposal manifests) requirements to assure that FOG Control Devices are managed, operated and maintained in accordance with established criteria and nationally recognized best management practices.

- 5. Administrative Requirements** – Establishment of administrative requirements for PRASA to manage data collected and monitoring activities.

  - a. Records Control
  - b. Monitoring
  - c. Inspection and entry
  - d. Data acquisition and control
  - e. PRASA shall develop a mechanism of referral to notify the municipal separate sewer system owner (MS4) and other regulatory agencies of FOG discharges into their storm sewer system.
  
- 6. Training** – Conduct training about the FOG Control Program to PRASA staff (technical, legal, and administrative) to ensure proper implementation of FOG Control Program, including performance indicators to measure the effectiveness of a FOG Control Program. In addition, PRASA shall provide to EPA a biannual certification whereas PRASA acknowledging the required trainings provided to FOG inspectors.
  
- 7. Public Education** – Create a public education program directed at reducing the amount of FOG entering into the Sewer System from FSEs and residences by educating on the impacts of FOG in the Sewer System and disposal alternatives through brochures and on the PRASA’s website.

## APPENDIX N



**AUTORIDAD DE ACUEDUCTOS Y ALCANTARILLADOS DE PUERTO RICO**

**(Puerto Rico Acueduct & Sewer Authority) PRASA**

**NOTIFICACION DE 24 hrs. (24 hrs. NOTIFICATION)**

Tipo de evento : **DESBORDE SISTEMA SANITARIO** (Type of Event)  **DESCARGA NO AUTORIZADA** (UNAUTHORIZED RELEASE)  **DESBORDE SISTEMA COMBINADO (CSO)** (COMBINED SEWER OVERFLOW)

Instalación, seleccione una: **TUBERIA (PIPE)** (Installation, select one:)  → **DIAMETRO/PULGADAS** (DIAMETER/INCHES)  **COORDENADAS:** LATITUDE **18.208180**  
**ACOMETIDA SANITARIA** (CLEANOUT HOLE)  LONGITUDE **-65.845870**

**Estimado de Flujo** (Estimated Flow)  **Gallones por minuto (Si se puede determinar)** (Galons per minute) (If it can be determined)  **CLIMA (WEATHER)**  **Seco (Dry)**  **Húmedo (Wet)**

**Nombre persona que notifica** (Name of person that notifies)  **Número de Querella** (Complaint Number)

**Fecha y hora de la notificación** (Date and hour of the notification)

**Dirección** (Address)

**Planta de Tratamiento Matriz (WWTP)** (Waste Water Treatment Plant)

**Número del Permiso NPDES** (NPDES Number)

**Cuerpo de agua receptor (si alguno)** (Receiving Water Body) (If any)

**Día/hora comenzó el evento** (Date and hour the event began)

**Día/hora que terminó o se espera termine el evento** (Date and hour the event finished or is expected to finish)  **Cese del desborde** (Cessation of overflow)

**Causa o descripción del evento** (Cause or description of the event)

**Es posible que el desborde llegue a la toma de una instalación de agua potable?** (Is it possible that the bypass arrive to an intake of a Water Treatment Plant)  **SI (Yes)**  **NO**

**Instalación afectada** (Water Treatment Plant affected)

**Nombre de la persona de la instalación afectada, a quien se notificó, fecha y hora** (Name of the person of the installation notified, date and hour)

**Se mitigó el impacto?** (Any mitigation measure)  **Si (Yes)**  **No Aplica (Not applicable)**

**Descripción de mitigación** (Description of Mitigation)

- El lugar se inspecciona de forma regular y de encontrarse un desborde, un camión se envía al lugar y se toman las medidas necesarias para terminar el desborde o mitigar el mismo.
- Se implementaron las siguientes medidas remediativas en el lugar:
  - Solución (HTH) se aplica en el lugar del desborde
  - Material absorbente "Booms" se instaló y se realizó la limpieza del lugar
  - Una línea temporera fue instalada como una medida para detener el desborde
  - Se instaló una bomba de diesel de forma temporera
  - El desborde se contuvo en un dique temporero
  - Se implantó un sistema de acarreo en el lugar
  - El caso fue/será referido a la Oficina de Infraestructura para evaluación
  - El público fue notificado de que no puede utilizar el cuerpo de agua (río, lago, playa, quebrada, etc.) para recreación de contacto directo
  - Un proyecto de Mejoras permanentes está/estará en proceso para resolver esta situación de desbordes:
- Otros

**Acción tomada para eliminar la causa del evento** (Action taken to eliminate the cause of the event)

**Acción tomada para prevenir repetición** (Action taken to prevent recurrence of the event)

**Información reportada por:** (Information reported by)

**Nombre (Name)**

**Título / Región (Title / Region)**

**Nota: Esta notificación sustituye la notificación telefónica a la Oficina de la EPA, Región 2, División del Caribe**

Note : (THIS NOTIFICATION SUBSTITUTES THE NOTIFICATION BY PHONE TO EPA'S REGION 2 CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION OFFICE)

**c: EQB - President/Chairwoman, Environmental Compliance Director, PRASA**  
**E mail: EPA  pend**  
**Fax number: EQB (787) 767-1962**  
**DOH - Water Division Director, (787) 777-0154.**  
**Problems sending notification to EPA? Contact Mr. Edwin Marquez, Phone: (787) 977-5804.**

**Date**

**Eng. José Font, Director**

Caribbean Environmental Protection Division  
 U.S. Environmental Protection Agency  
 City View Plaza II, Suite 7000  
 No. 48 Road 165 Km. 1.2  
 Guaynabo, Puerto Rico 00968-8069

**Re: Notice of Operational Event**

Facility (if other than WWTP)

WWTP

NPDES Permit No.

Complaint Number:

Dear Eng. Font:

In order to comply with the National Pollutant Discharge Elimination System Permit (Part II, section 12 and 13) of the above indicated Wastewater Treatment Plant, PRASA is hereby notifying that an operational event occurred at the aforementioned facility as indicated below:

**EVENT NOTIFICATION**

Installation: Pipe: →→→(Diameter/inches):

Cleanout hole:

Cese del desborde

Weather: Dry

Wet

Flow Measurement: \_\_\_\_\_ gallons/min. (If it can be determined)

TYPE OF EVENT	EVENT STARTED		EXPECTED TO END OR ENDED		DESCRIPTION	IMMEDIATE ACTION TAKEN	ACTION TAKEN TO PREVENT RECURRENCE
	DATE	TIME	DATE	TIME			

**COMMENTS:**

Multiple blank lines for comments.

Cordially,

Person reporting event

Title

c: EQB - President/Chairwoman, Environmental Compliance Director, PRASA  
 E mail: EPA (pend)  
 Fax number: EQB (787) 767-1962  
 DOH - Water Division Director, (787) 777-0154.  
 Problems sending notification to EPA? Contact Mr. Edwin Marquez, Phone: (787) 977-5804.

**NOTIFICACION DE 5 Días / 5 Days NOTIFICATION**

XXXXXXXXXXXXXX

**Fecha** Date

**Ing. José Font, Director**

División del Caribe  
 Caribbean Environmental Protection Division  
 Agencia Federal de Protección Ambiental  
 U.S. Environmental Protection Agency  
 City View Plaza II, Suite 7000  
 No. 48 Road 165 Km. 1.2  
 Guaynabo, Puerto Rico 00968-8069

**Re: Notificación de un Evento Operacional**  
 Re: Notice of Operational Event

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

**Facilidad (si no es planta de agua usadas)**  
 Facility (if other than WWTP)

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

**Planta de Tratamiento Matriz WWTP**  
 Waste Water Treatment Plant

Permiso NPDES No. [Redacted]  
 NPDES Permit No.:

Querrela número: [Redacted]  
 Complaint Number:

**Estimado Ing. Font:**  
 Dear Eng. Font

Para cumplir con la Parte II, Secc. 12 y 13 del Permiso Nacional para la Eliminación de Descarga de Contaminantes (NPDES),  
 In order to comply with the National Pollutant Discharge Elimination System Permit (Part II, Sections 12 and 13) of the above indicated Waste Water Treatment Plant,  
**se notifica que ocurrió un evento operacional en la facilidad arriba mencionada, según se indica a continuación:**  
 PRASA is hereby notifying that an operational event occurred at the aforementioned facility as indicated below:

**NOTIFICACION DEL EVENTO** EVENT NOTIFICATION

<b>Instalación:</b> Installation	<b>Tubería:</b> [Redacted] →→→ <b>(Diámetro/pulgadas):</b> [Redacted] Pipe Diameter / inches	<b>Cese del desborde:</b> [Redacted] Cessation of overflow
<b>EBAS</b> [Redacted] WWPS	<b>Acometida Sanitaria</b> [Redacted] Cleanout Hole	<b>Clima:</b> <b>Seco</b> [Redacted] Weather Dry
<b>Planta</b> [Redacted] WWTP		<b>Húmedo</b> [Redacted] Wet

**Estimado de Flujo:** \_\_\_\_\_ **Galones por minutos (Efectivo después de septiembre 2018)**  
 Estimated Flow Gallons per minutes (Effective after September 2018)

TIPO DE EVENTO (TYPE OF EVENT)	EVENTO COMENZO (EVENT STARTED)		SE ESPERA TERMINE O EVENTO TERMINO (EXPECTED TO END OR ENDED)	
	FECHA (DATE)	HORA (TIME)	FECHA (DATE)	HORA (TIME)

**Descripción de mitigación** (Description of Mitigation)

El lugar se inspecciona de forma regular y de encontrarse un desborde, un camión se envía al lugar y se toman las medidas necesarias para terminar el desborde o mitigar el mismo.

Se implementaron las siguientes medidas remediativas en el lugar:

- Solución (HTH) se aplica en el lugar del desborde
- Material absorbente "Booms" se instaló y se realizó la limpieza del lugar
- Una línea temporera fue instalada como una medida para detener el desborde
- Se instaló una bomba de diesel de forma temporera
- El desborde se contuvo en un dique temporero
- Se implantó un sistema de acarreo en el lugar
- El caso fue/será referido a la Oficina de Infraestructura para evaluación
- El público fue notificado de que no puede utilizar el cuerpo de agua (río, lago, playa, quebrada, etc.) para recreación de contacto directo
- Un proyecto de Mejoras permanentes está/estará en proceso para resolver esta situación de desbordes

Otros \_\_\_\_\_

**Acción tomada para eliminar la causa del evento**  
 (Action taken to eliminate the cause of the event)

[Redacted]

**Acción tomada para prevenir repetición**  
 (Action taken to prevent recurrence of the event)

[Redacted]

**Persona que notifica el evento**  
 (Person reporting the event)

[Redacted]

**Posición (Position)** **Título / Región (Title / Region)**

**c: EQB - Presidente(ta), Directorado Cumplimiento Ambiental, PRASA**  
 President/Chairwoman, Environmental Compliance Director, PRASA

**E mail: EPA** [Redacted] **(pend)**

**Fax number: EQB (787) 767-1962**

**DOH - Director División de Agua, (787) 777-0154.**  
 Water Division Director

**Problemas enviando notificación a la EPA? Llamar al Sr. Edwin Márquez, 787-977-5804**  
 Any problems sending notification to EPA? Contact Mr. Edwin Marquez, Phone: (787) 977-5804

## APPENDIX O

### Appendix O

#### Description of Caño Martín Peña Projects

No.	Project Name	Start Date	Completion Date	Approximate Investment (in Millions)	Project Description and Conditions
1	New Rexach Trunk Sewer Siphon	The start of construction is subject to the relocation of 14 families by ENLACE. Construction will start six (6) months after the relocation of families	Construction Completion is thirty (30) months from the construction start date assuming that there no contaminated soils and/or archeological findings. If contaminated soils and/or archeological findings are found, PRASA may request additional time to complete the project.	\$13	<ul style="list-style-type: none"> <li>• Located on the south tip of the Marina community, along Calle 13 (also known as Calle Tito Rodríguez) and on Santiago Iglesias Street in the Parada 27 community.</li> <li>• The project consists of the construction of a siphon to replace the existing Rexach Trunk Sewer with the goal of preventing it from interfering with the proposed bottom depth of the Caño Martín Peña and to increase its capacity to allow the additional sanitary flow from the communities which are being provided with the new sewer system.</li> <li>• Contingent on the relocation of 14 families to be performed by ENLACE.</li> <li>• The construction budget and construction schedule is subject to the possibility of finding contaminated soils in the excavation, archeological findings and any other unforeseen condition.</li> </ul>
2	Israel and Bitumul Communities New Sanitary Sewer System North	Construction will start six (6) months after the “Paseo del Caño Sur” project is completed by	Construction Completion is thirty (30) months from the	\$10	<ul style="list-style-type: none"> <li>• Located on the south east of the Caño Martín Peña, near its access to the San José Lagoon.</li> <li>• Neither of these communities has a sanitary sewer system.</li> </ul>

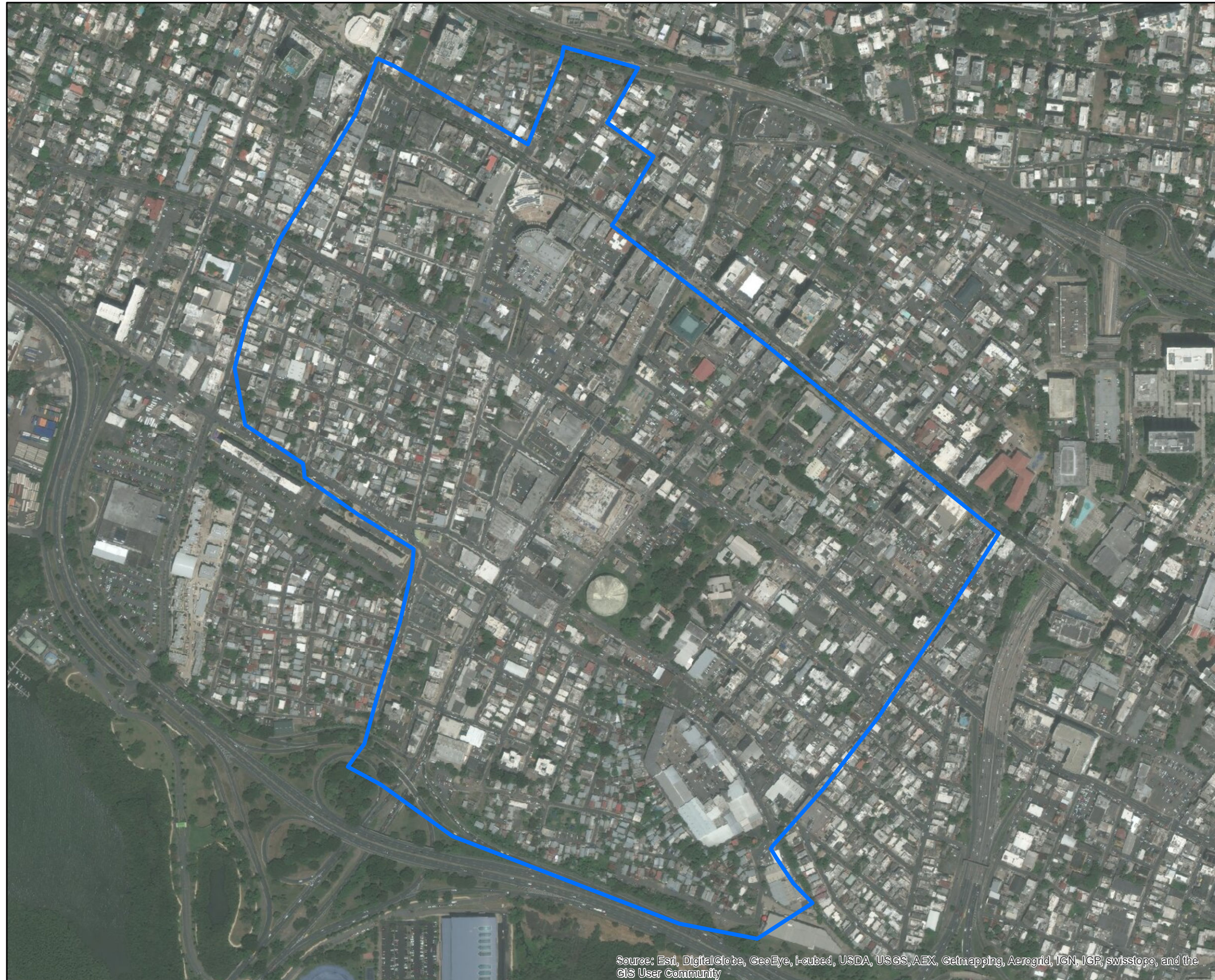
		ENLACE. In addition, it is contingent on the Municipality of San Juan completing the design of the Storm Sewer Project and obtaining the necessary financing.	construction start date assuming that there no contaminated soils and/or archeological findings. If contaminated soils and/or archeological findings are found, PRASA may request additional time to complete the project.		<ul style="list-style-type: none"> <li>• PRASA’s current proposal to provide sewage collection consists of a gravity sewer collection system.</li> <li>• Construction of the “Paseo del Caño Sur” by Enlace and the sub-trunk sewer are both a pre-condition to the construction of the gravity line project.</li> <li>• The design and financing of the Storm Sewer by the Municipality of San Juan is a pre-condition and the construction shall be performed at the same time as the sewer system to minimize costs and disruption to the community during construction.</li> <li>• The project will only cover the north section of these communities.</li> <li>• The construction budget and construction schedule is subject to the possibility of finding contaminated soils in the excavation and having to dispose excess material as such and any other unforeseen condition.</li> </ul>
3	Israel and Bitumul Communities New Sanitary Sewer System South	Construction Start: July 30, 2017 This date is contingent on the Municipality of San Juan completing the design of the Storm Sewer Project and obtaining the	July 30, 2019 This date is contingent to unforeseen conditions that may occur.	\$25	<ul style="list-style-type: none"> <li>• Located on the south east of the Caño Martín Peña, near its access to the San José Lagoon.</li> <li>• Neither of these communities has a sanitary sewer system.</li> <li>• PRASA’s current proposal to provide sewage collection consists of a gravity sewer collection system.</li> <li>• The design and financing of the Storm Sewer project by the Municipality of San Juan is a pre-condition and the</li> </ul>

		necessary financing.			<p>construction shall be performed at the same time as the sewer system.</p> <ul style="list-style-type: none"> <li>The construction budget and construction schedule is subject to the possibility of finding contaminated soils in the excavation and having to dispose excess material as such and any other unforeseen condition.</li> </ul>
4	Las Monjas and Buena Vista Hato Rey New Sanitary Sewer System	The design start date is six (6) months after ENLACE's "Plan de Desarrollo Integral" is implemented.	Construction dates to be submitted to EPA after design is completed.	\$32	<ul style="list-style-type: none"> <li>Located south of the Caño Martín Peña, Las Monjas is located to the east of the Juan Ponce de León Avenue, while Buena Vista Santurce is located to the west of the Barbosa Avenue.</li> <li>These communities are partially served by a PRASA sanitary sewer system that discharges into the San José Sanitary Trunk Sewer, but the majority of both communities do not have sewer service.</li> <li>A gravity sanitary sewer collection system is proposed for those parts that currently do not have a sanitary sewer system.</li> <li>The construction budget and construction schedule is subject to the possibility of finding contaminated soils in the excavation and having to dispose excess material as such and any other unforeseen condition.</li> <li>The design is subject to the implementation by Enlace of their "Plan de Desarrollo Integral".</li> </ul>

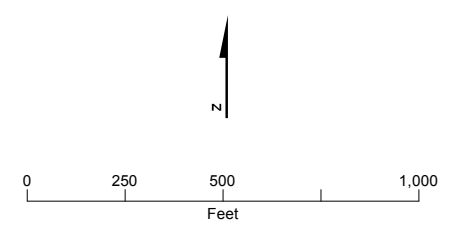
5	Buena Vista and San Ciprián New Sanitary Sewer System	The design start date is six (6) months after the ENLACE's "Plan de Desarrollo Integral" is implemented. The construction start date is contingent on the completion of the New Rexach Trunk Sewer Syphon project.	Construction dates to be submitted to EPA after design is completed.	\$37	<ul style="list-style-type: none"> <li>• Located north of the Caño Martín Peña and east of Barrio Obrero Oeste on both north and south of Rexach Avenue.</li> <li>• The Barrio Obrero San Ciprián community has sanitary sewer system in most of the streets except for the San Ciprián Street and the Haydee Rexach Interior Street, while Buena Vista Santurce does not have a sanitary sewer system.</li> <li>• A collection system is proposed for both communities. The project cannot be built until the new Rexach Trunk Sewer siphon is completed.</li> <li>• The construction budget and construction schedule is subject to the possibility of finding contaminated soils in the excavation and having to dispose excess material as such, and any other unforeseen condition.</li> <li>• The design is subject to the implementation by Enlace of their "Plan de Desarrollo Integral".</li> </ul>
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## APPENDIX P



LEGEND  
[Blue outline] SIMA Barriada Figueroa



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

**SIMA Barriada Figueroa**  
San Juan, Puerto Rico



## APPENDIX Q

## **Appendix Q**

### **Barriada Figueroa Project Report Minimum Requirements**

Pursuant to Section XI of the CD (Puerto Nuevo Sanitary Sewer System Evaluations And Repairs) PRASA shall memorialize and report the findings of the reconnaissance and inspection work activities with respect to the Barriada Figueroa Project in compliance with the following minimum requirements:

#### **1. Executive Summary**

- a. Objectives/purpose
- b. Description of the Barriada Figueroa Project
- c. Summary of findings
- d. Summary of repair actions to be undertaken
- e. Summary of costs to undertake repair actions
- f. Conclusions

#### **2. Table of Content**

#### **3. Definitions and acronyms**

#### **4. Introduction**

- a. Objectives/purpose of Barriada Figueroa Project
- b. Describe the scope of work
- c. Describe process and protocols used during the Barriada Figueroa Project
- d. Personnel involved and title

#### **5. Scope of Work**

- a. Prepare a list and describe any equipment, test, or technology (e.g., zoom/CCTV camera, smoke testing, dye testing, or cleaning trucks) used to develop and implement the Barriada Figueroa Project, including equipment, test or technology used for the identification and mapping of PRASA's assets.
- b. Describe any technical, physical/infrastructure, or any other difficulties, challenges, or impediments found during the development and implementation of Barriada Figueroa Project.
- c. Describe the Sewer System inspection methodology and protocols (e.g., Quality Assurance/Quality Control).
- d. Describe the planning and performance of the Sewer System inspections.
- e. Provide all relevant information and data gathering activities for map generation, update, and verification of PRASA's assets.

- f. Describe all the relevant work involved in integrating the field-collected information on PRASA's assets into the PRASA Geographic Information System (GIS) and data management systems.
- g. Provide a summary on any Sewer System and storm sewer system repair work undertaken as a result or as part of the Barriada Figueroa Project.
- h. Provide information on any pending or future work to be performed based on the investigation within the Barriada Figueroa sewershed.
- i. Identify all wastewater collection and conveyance assets (e.g., manholes, sanitary sewer pipes, catch basins, pipes, connection pipes, weirs, baffles) owned or operated by PRASA.
- j. Provide a summary of the defects found in the assets during the Barriada Figueroa Project.
- k. Prepare a list of interconnections found between the PRASA's Sewer System, the storm sewer system from the Municipality of San Juan, and other third party owned/operated pipeline or pipeline conveyance within the Barriada Figueroa sewershed.
- l. Describe how the sewers were cleaned, how the collected debris/solids were disposed of, and if any treatment was provided to the collected debris/solids before disposal.
- m. Provide a summary of the following:
  - i. all information on the physical characteristics of PRASA's Sewer System;
  - ii. miles of sewer pipe (sanitary and combined) inspected;
  - iii. size (e.g., diameter, etc.), length and materials of pipes inspected;
  - iv. amount of manholes (sanitary and combined) inspected;
  - v. amount of catch basins and inlets inspected;
  - vi. amount of pump stations inspected; and
  - vii. approximate amount (e.g., tons, gallons, etc.) of solids/debris disposed of.
- n. Provide a piping configuration (system layout for sanitary, combined and storm) and connectivity maps portraying clearly all piping interconnections and a table of the areas that were inspected.

## **6. Recommendations**

Provide all recommendations made by PRASA's contractors involved before, during and after the development and implementation of the Barriada Figueroa Pilot Project.

**7. Conclusions**

Provide technical conclusion pertaining the Barriada Figueroa Project.

**8. Appendixes**

The appendixes shall contain, as a minimum, the following documents:

- a. Provide a map of the Barriada Figueroa sewershed and study area
- b. Provide copies of sewer maps (storm, sanitary, and combined sewer system maps) used at the start of the Barriada Figueroa as the base to update the maps
- c. Digital copies of photographs, videos and sewer inspections forms
- d. Provide copies of all developed maps as part of the Barriada Figueroa Project for the Barriada Figueroa Sanitary Sewershed in Portable Document Format (PDF) and GIS format (i.e., shapefiles) including but not limited to:

<b>Collection System</b>	<b>Treatment Facilities</b>	<b>Pump Stations</b>
<ul style="list-style-type: none"> <li>• Pipe type (e.g., gravity main, force main, trunk sewer, lateral sewer, interceptor sewer)</li> <li>• Pipe diameter</li> <li>• Pipe material</li> <li>• Flow direction</li> <li>• Sewer manholes</li> <li>• Boundaries from service areas</li> </ul>	<ul style="list-style-type: none"> <li>• Name</li> <li>• Location coordinates</li> <li>• Boundaries from service areas</li> </ul>	<ul style="list-style-type: none"> <li>• Name</li> <li>• Operational area</li> <li>• Municipality</li> <li>• Location coordinates</li> <li>• Number of pumps</li> <li>• Flow (in GPM)</li> </ul>

- e. Provide copies on any standards and/or guidance manuals (e.g., NASSCO, PRASA's Design Rules) used to develop the Sewer System assessments.
- f. Provide any partial/final condition assessment report provided by PRASA's contractor (provide in electronic format).

## APPENDIX R

<b>Appendix R – Puerto Nuevo RWWTP Sewer System Areas of Concern</b>		
<b>Area</b>	<b>Overflow Points Location</b>	<b>Actions Needed</b>
1. Condado Lagoon	<ul style="list-style-type: none"> <li>• Mariano Ramirez (Joffre) Street from Ashford Avenue to Marseilles Street.</li> <li>• Aguadilla Street from Ashford Avenue to Mayaguez Street.</li> <li>• Mayaguez Street from Aguadilla Street to Barranquitas Street.</li> <li>• Barraquitas Street from Mayaguez Street to Ashford Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at these locations every six (6) months.</li> <li>• Food establishments shall be inspected every six (6) months.</li> <li>• PRASA shall establish an education campaign in the food establishments of this area.</li> </ul>
2. Condado Beach	<ul style="list-style-type: none"> <li>• Kings Court Final Street (in front of Kings Court Playa #59 Apartments Building) from McLeary street to end in front of Atlantic Ocean.</li> <li>• Ashford Avenue from King Court Avenue to F. Krug Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every three (3) months.</li> <li>• PRASA shall establish an education campaign in the food establishments of this area.</li> </ul>
3. DNER De Diego Pump Station (PS)	<ul style="list-style-type: none"> <li>• Wilson Street from De Diego Avenue to Julian Blanco Street.</li> <li>• Estrella Street from Julian Blanco to De Diego.</li> <li>• De Diego Avenue from Estrella Street to Ashford Avenue.</li> <li>• Manhole between Baldorioty Marginal Road, south intersection with the De Diego Street.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every six (6) months.</li> <li>• Food establishments shall be inspected every six (6) months.</li> <li>• PRASA shall establish an education campaign in the area food establishments of this area.</li> </ul>
4. Condado	<ul style="list-style-type: none"> <li>• Magdalena Avenue from Cervantes Street to Plaza Las Nereidas including intersections with Condado Street and Caribe Street.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every six (6) months.</li> <li>• Food establishments shall be inspected every six (6) months.</li> <li>• PRASA shall establish an education campaign in the food establishments of this area.</li> </ul>



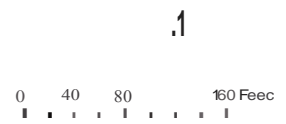
<b>Appendix R – Puerto Nuevo RWWTP Sewer System Areas of Concern</b>		
<b>Area</b>	<b>Overflow Points Location</b>	<b>Actions Needed</b>
5. Ocean Park	<ul style="list-style-type: none"> <li>• María Moczó Street from Loiza Street to Cacique Street.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every six (6) months.</li> <li>• Food establishments shall be inspected every six (6) months.</li> <li>• PRASA shall establish an education campaign in the food establishments of this area.</li> </ul>
6. Loíza Street	<ul style="list-style-type: none"> <li>• Loíza Street from Inga to Barcarola Street.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every three (3) months.</li> <li>• Food and other commercial establishments shall be inspected every six (6) months.</li> <li>• PRASA shall establish an education campaign in the food establishments.</li> </ul>
7. El Paraíso Residential Development	<ul style="list-style-type: none"> <li>• Támesis Street from Ganges Street to Amazona Street.</li> <li>• Amazonas Street from Támesis to Rodano Street intersection.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area on a monthly basis.</li> <li>• PRASA shall conduct the sewer cleaning of the PR- 176 Sewer System from the area near the Río Piedras Bridge up to the PR-8838 intersection.</li> </ul>
8. Ausubo Creek	<ul style="list-style-type: none"> <li>• San Genaro Street from Santa Brigida Street to Santa Angelica Street.</li> <li>• San Claudio Avenue (PR-845) - No exit street on Victor Fernández Industrial Park.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every four (4) months.</li> <li>• PRASA shall conduct the evaluation and cleaning of the Sewer System from PR-845 up to PR-176.</li> </ul>
9. PR-47 (José De Diego Street)	<ul style="list-style-type: none"> <li>• De Diego Avenue intersection with Lealtad Street and the point identified in the Juan Méndez creek.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System every four (4) months.</li> <li>• Inspect from the bridge the point identified at the creek every four (4) months.</li> </ul>

<b>Appendix R – Puerto Nuevo RWWTP Sewer System Areas of Concern</b>		
<b>Area</b>	<b>Overflow Points Location</b>	<b>Actions Needed</b>
10. Dos Pinos Residential Development	<ul style="list-style-type: none"> <li>• Lince Street Final</li> <li>• Ariel Street Final</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every six (6) months.</li> </ul>
11. Highland Park Residential Development	<ul style="list-style-type: none"> <li>• Naranjal Street from Cactus Street to Acacia Street</li> <li>• Acacia and Algarrobo Street</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the sewer system at this area every six (6) months.</li> </ul>
12. Barrio Obrero Rexach Avenue	<ul style="list-style-type: none"> <li>• Rexach Avenue from Barbosa Avenue to Valparaiso Street (4 Street).</li> <li>• 15 Street from Rexach Avenue to Borinquen Avenue.</li> <li>• Manhole in intersection Lipit Street with Rexach Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every six (6) months.</li> </ul>
13. PR-1 and PR-3 connection loop	<ul style="list-style-type: none"> <li>• PR- 1 and PR-3 loop.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every six (6) months.</li> </ul>
14. Monte Carlo Residential Development	<ul style="list-style-type: none"> <li>• Street 31 (point of connection of Vista Verde Apartments).</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the sewer system at this area every six (6) months.</li> </ul>
15. Villa Nevarez Residential Development	<ul style="list-style-type: none"> <li>• Street 4 from Street 9 to Street 17.</li> <li>• PR 21 from Street 17 to Street 9.</li> <li>• Street 9 from PR 21 to Street 4.</li> <li>• Wastewater manholes on backyard of 4 Street residence #308.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every six (6) months.</li> <li>• PRASA shall raise two manholes on backyard of 4 Street residence # 308.</li> </ul>
16. Hipódromo Residential Development	<ul style="list-style-type: none"> <li>• Humacao Street from Calle Lafayette to B (Avelino Vicente) Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>• PRASA shall inspect and monitor the Sewer System at this area every three (3) months.</li> </ul>

<b>Appendix R – Puerto Nuevo RWWTP Sewer System Areas of Concern</b>		
<b>Area</b>	<b>Overflow Points Location</b>	<b>Actions Needed</b>
17. Villa Kennedy Housing Development	-Villa Kennedy Housing Developments: Manholes in front of Building 20, 21, 22, 23 and 24 and in front of Baseball park.	-PRASA shall inspect and monitor the Sewer System at this area every three (3) months. -PRASA shall establish an education campaign.
18. Bahía Residential Development	-Two manholes located in Oeste and Sur Street Intersection	-PRASA shall inspect and monitor the Sewer System at this area every four (4) months. -PRASA shall repair or replace Amelia Sewer Trunk near Baldorioty Street



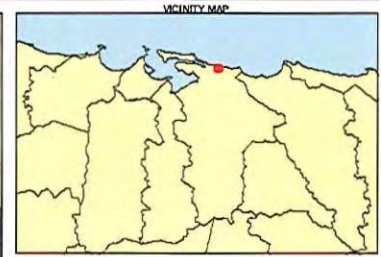
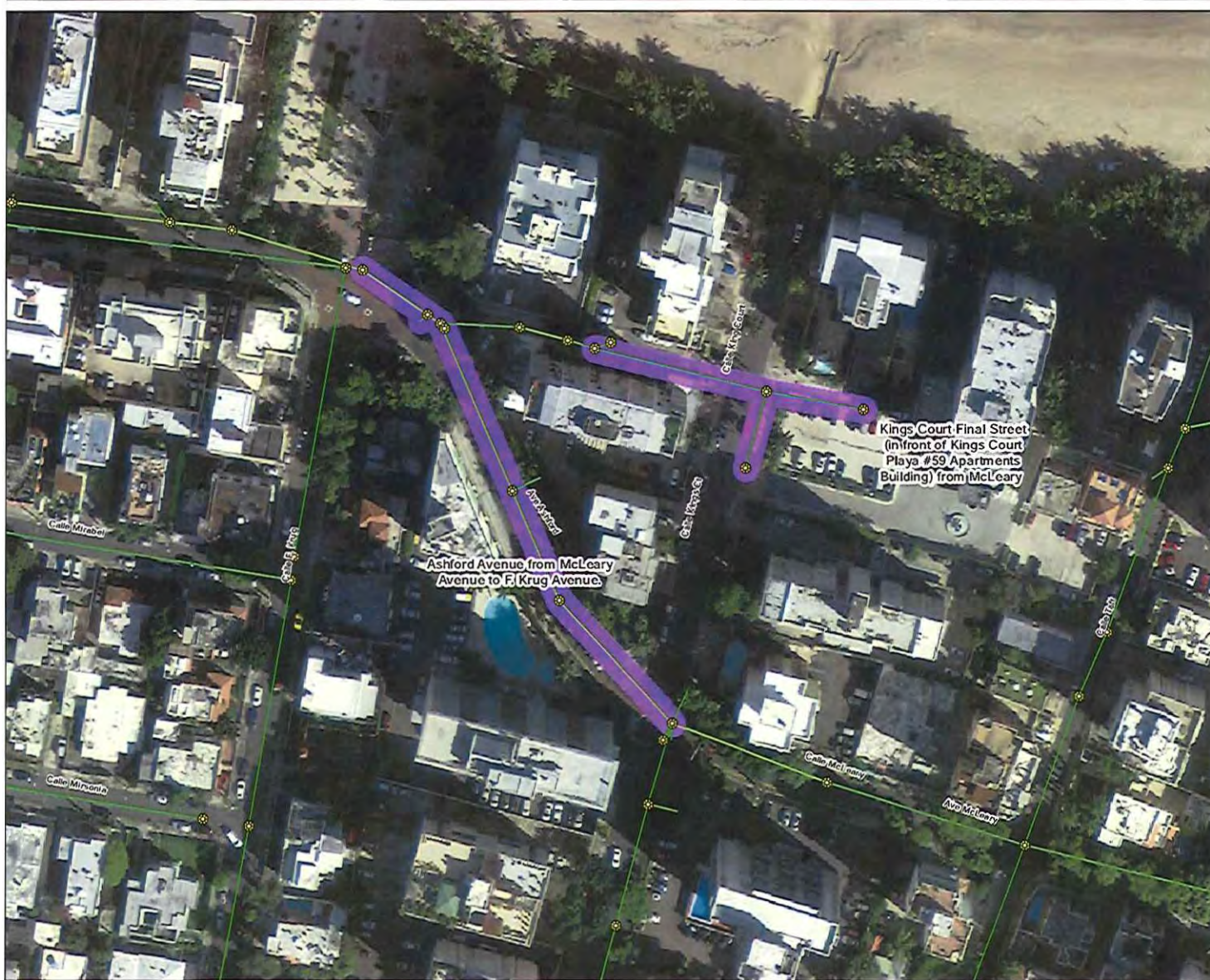
- LEGEND**
- Pump Station
  - Service Point
  - Manhole
  - Lateral
  - Force Majeure
  - Sewer
  - 8"
  - 12"
  - 24"
  - Area of Concern



Condition: Iagoon  
 Areas of Concern  
 S/In JuDt, Puerto Rico

CMc-<bo

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- LEGEND**
- Manhole
  - Sewer
  - < 8"
  - 9" - 12"
  - Area of Concern



Cond: >do Beach  
**Areas of Concern**  
San Juan, Puerto Rico

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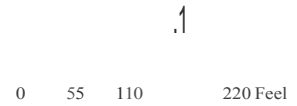






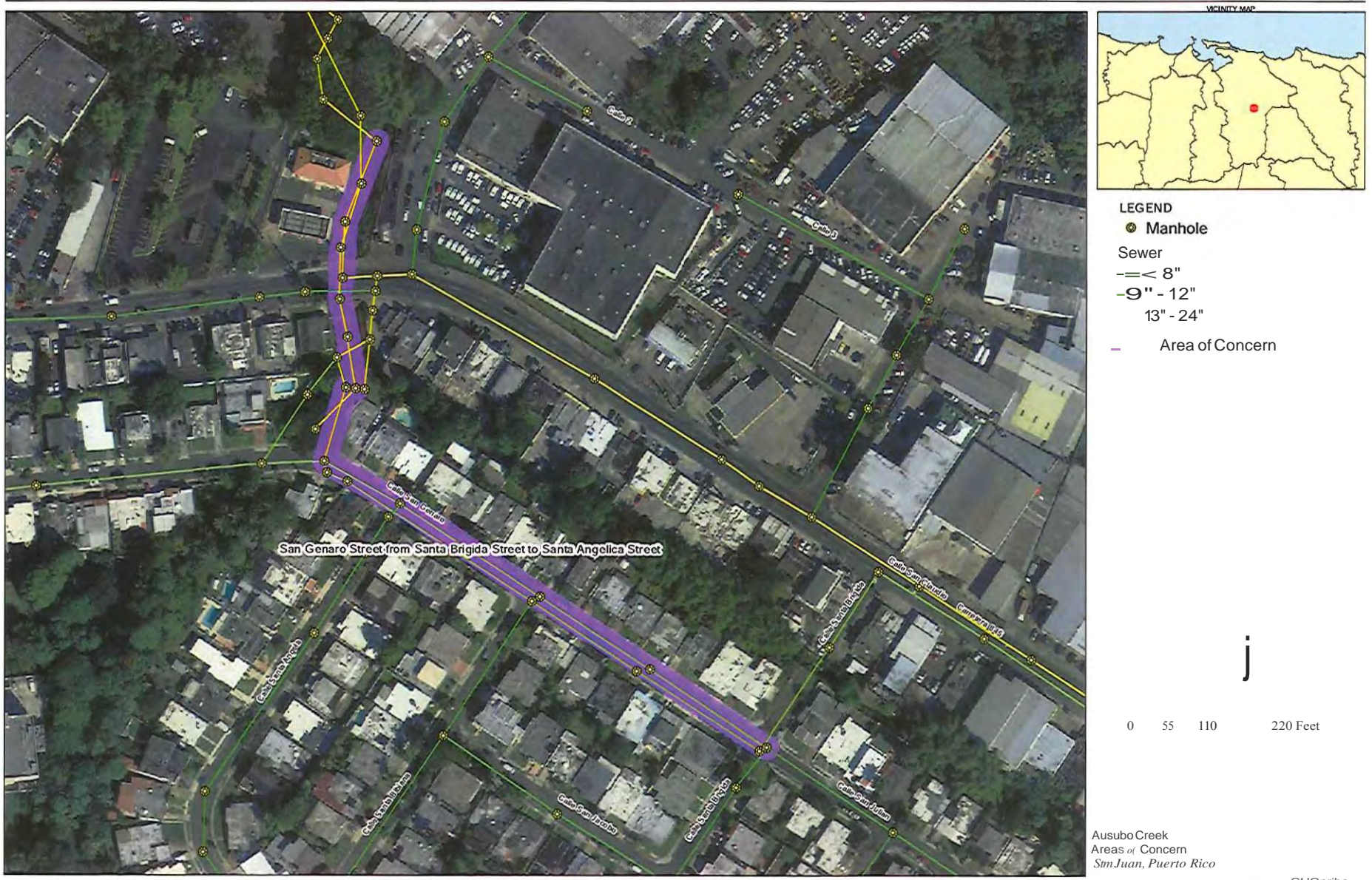


- LEGEND**
- Pump Station
  - o Manhole
  - Sewer
    - < 8"
    - 9" - 12"
    - 13" - 24"
    - 25" - 42"
  - Area of Concern



EIP m/s/o Rosdntbl/Development  
 Areas of Concern  
 Sim Juan, Puerto Rico

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LEGEND

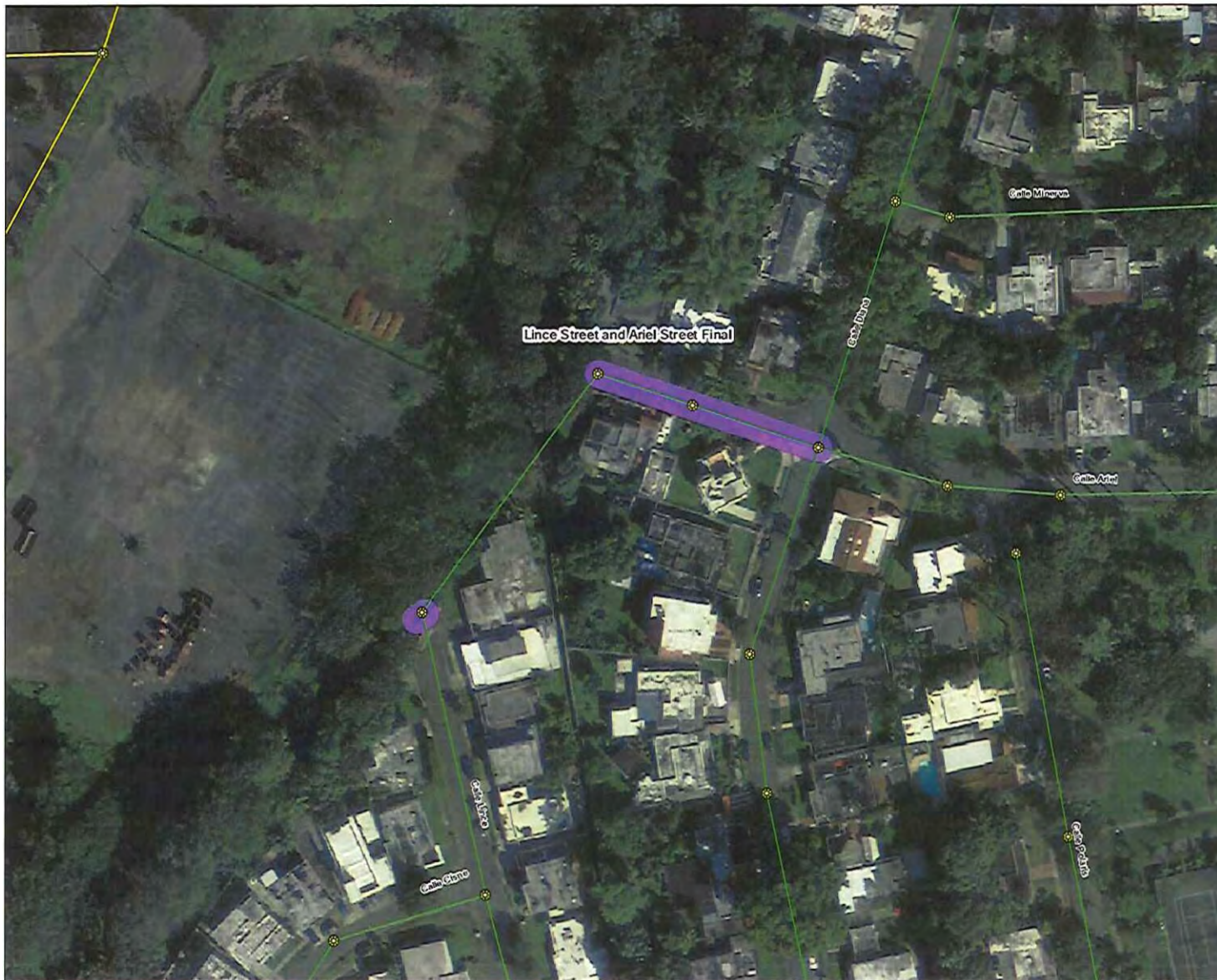
- Manhole
- Sewer
- 8"
- 9" - 12"
- Area of Concern

.1

0 37.5 75 150 Feet

PR-47 (JosO De Diego Street)  
 Areas of Concern  
 San Juan, Puerto Rico

CH.,..



LEGEND

- Manhole
- Sewer
- < 8"
- 13" - 24"
- Area of Concern

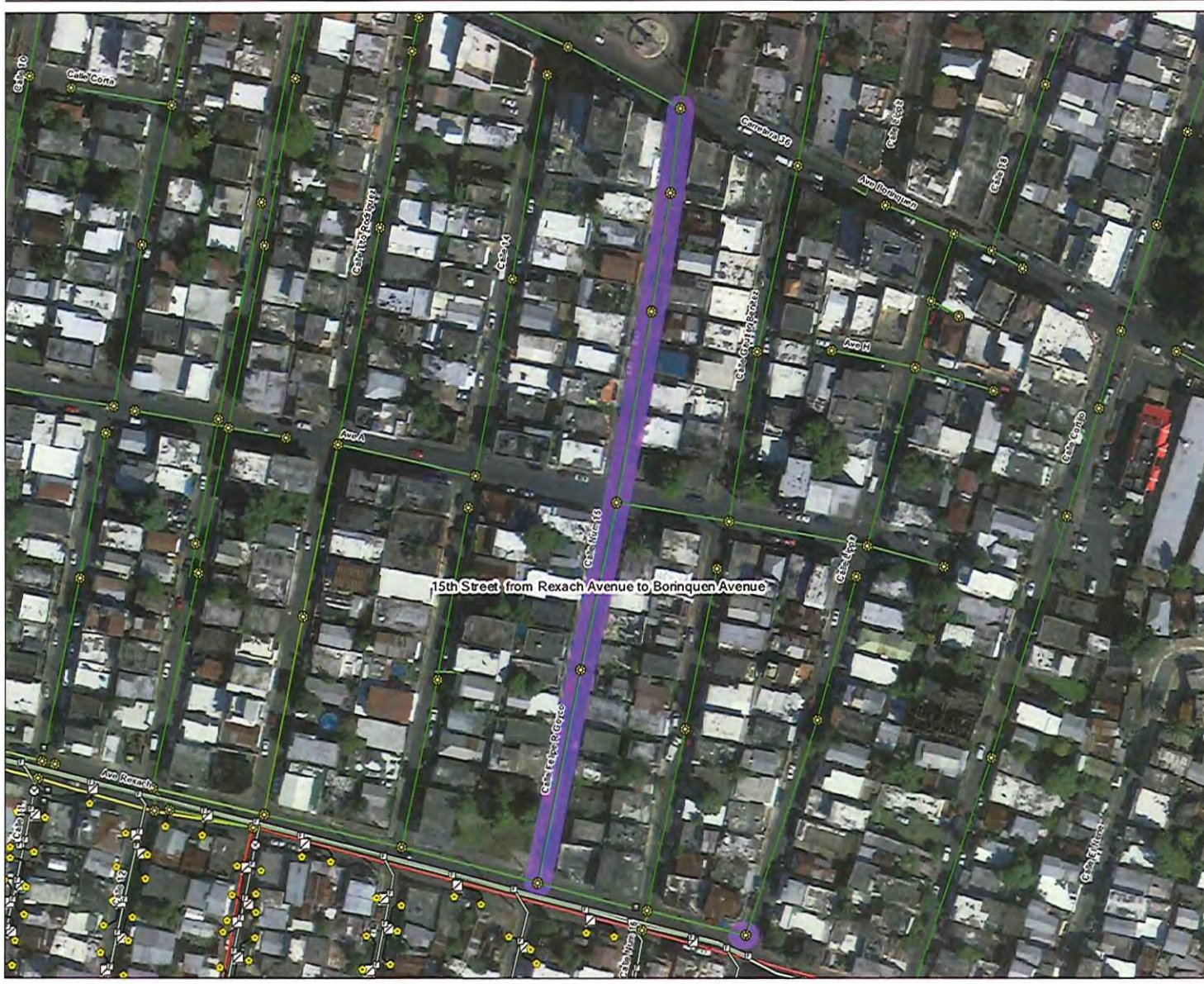


Dos Pinos RcsldcnalDevelopment  
Areas of Concern  
SDnJuDn, Puerto Rico

CHc-ibc







- LEGEND**
- ⊙ System Valve
  - ⌈⌋ Catch Basin
  - ⌈⌌⌋ Fitting
  - Service Point
  - Manhole
  - ⌈⌋ Vacuum Pit
  - Lateral
  - = Force Main
  - Sewer
  - 8"
  - 9" - 12"
  - 13" - 24"
  - 43" - 90"
  - Area of Concern

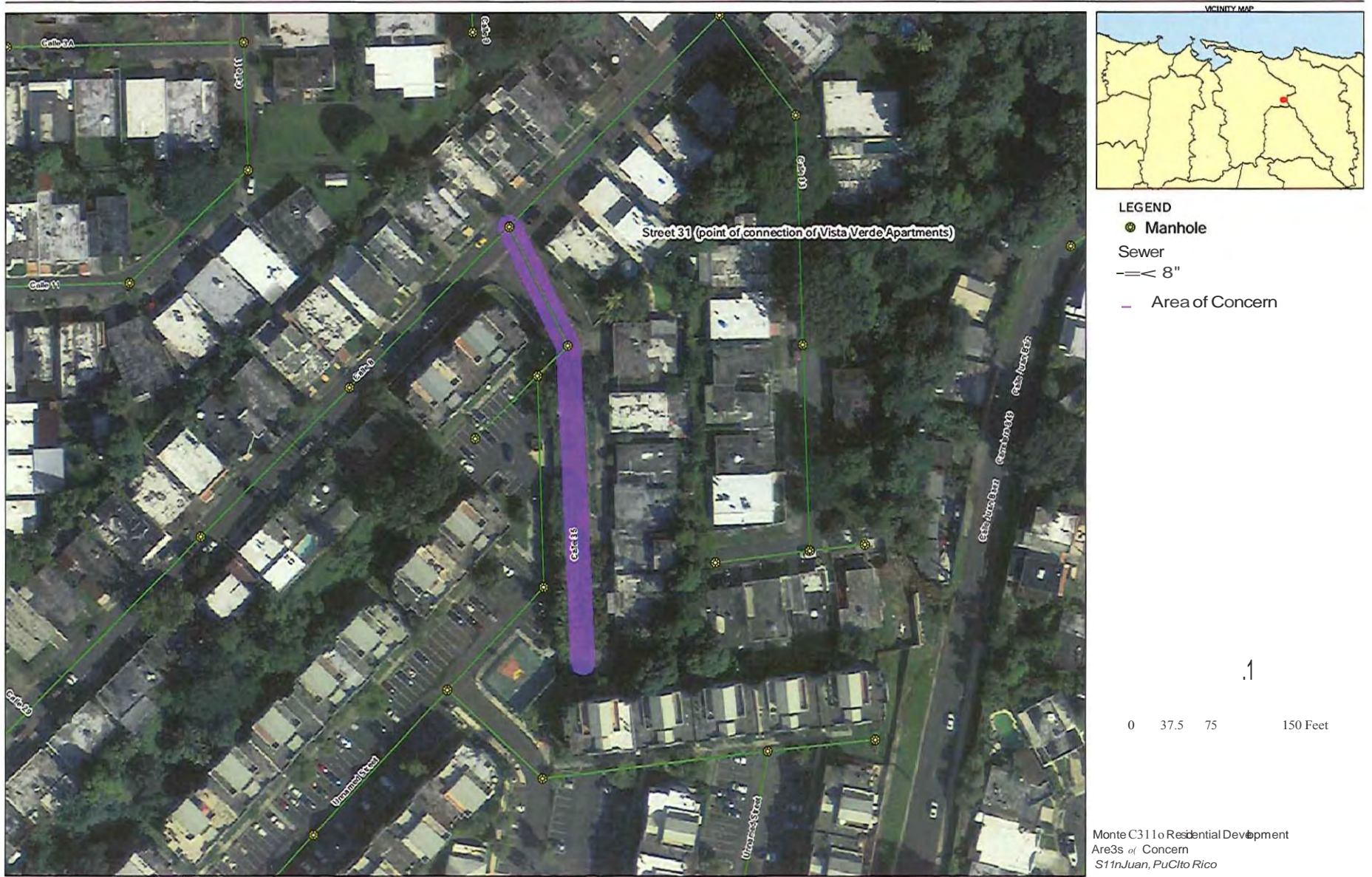


Barrio Obrero Rexach Avenue  
 Areas of Concern  
 San Juan, Puerto Rico

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Bath Residential Development  
Areas of Concern  
St. Juan, Puerto Rico  
-CHC<Wlbo

## APPENDIX S

**WWTP Name: Aguas Buenas**

**NPDES No. PR0020273**

**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/l	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/l	NMR	a
2-Chlorophenol	Daily Max.	µg/l	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/l	NMR	a
As	Daily Max.	µg/l	NMR	a
Cd	Daily Max.	µg/l	NMR	a
CN, Free	Daily Max.	µg/l	NMR	a
Color	Daily Max.	Pt-Co	25	a
Cr+3	Daily Max.	µg/l	NMR	a
Cr+6	Daily Max.	µg/l	NMR	a
Cu	Daily Max.	µg/l	68.8	f
F	Daily Max.	µg/l	NMR	a
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
Hg	Daily Max.	µg/l	0.050	a
NO <sub>2</sub> +NO <sub>3</sub>	Daily Max.	µg/L	22731	g
O&G	Daily Max.	mg/l	MO	a
Pb	Daily Max.	µg/l	NMR	a
Pentachlorophenol	Daily Max.	µg/l	NMR	a
Phenol	Daily Max.	µg/l	NMR	a
Se	Daily Max.	µg/l	NMR	a
T.Coliforms	Geo. Mean	colonies/100ml	MO	a
undissociated H <sub>2</sub> S	Daily Max.	µg/l	8.4	g
Zn	Daily Max.	µg/l	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.



**WWTP Name: Aibonito**  
**NPDES No. PR0025461**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
BOD5	Monthly Avg.	kg/day	205	g
BOD5	Monthly Avg.	mg/l	30	g
CN, Free	Daily Max.	µg/l	NMR	a
Color	Daily Max.	Pt-Co	50	g
Cr+6	Daily Max.	µg/l	NMR	a
Cu	Daily Max.	µg/l	18.22	f
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
Hg	Daily Max.	µg/l	NMR	a
MBAS	Daily Max.	µg/l	1141	g
NH3	Daily Max.	mg/l	6.013	g
NO2+NO3	Daily Max.	µg/L	30211	g
O&G	Daily Max.	mg/l	MO	a
P	Daily Max.	mg/l	6.71	g
T.Coliforms	Geo. Mean	colonies/100ml	MO	a
TDS	Daily Max.	mg/l	605	g
undissociated H2S	Daily Max.	µg/l	MO	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WWTP Name: Barranquitas**  
**NPDES No. PR0025861**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Cd	Daily Max.	µg/l	NMR	a
CN, Free	Daily Max.	µg/l	NMR	a
Color	Daily Max.	Pt-Co	35	g
Cr+3	Daily Max.	µg/l	NMR	a
Cr+6	Daily Max.	µg/l	NMR	a
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
Hg	Daily Max.	µg/l	NMR	a
MBAS	Daily Max.	µg/l	NMR	a
NH3	Daily Max.	mg/l	5.000	g
NO2+NO3	Daily Max.	µg/L	25011	g
O&G	Daily Max.	mg/l	NMR	a
P	Daily Max.	mg/l	9.9	g
Pb	Daily Max.	µg/L	NMR	a
T.Coliforms	Geo. Mean	colonies/100ml	NMR	a
undissociated H2S	Daily Max.	µg/l	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WWTP Name: Caguas**  
**NPDES No. PR0025976**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/l	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/l	NMR	a
2-Chlorophenol	Daily Max.	µg/l	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/l	NMR	a
Ag	Daily Max.	µg/l	NMR	a
As	Daily Max.	µg/l	NMR	a
Cd	Daily Max.	µg/l	NMR	a
CN, Free	Daily Max.	µg/l	10.3	a
Color	Daily Max.	Pt-Co	25	12 mo.
Cr+3	Daily Max.	µg/l	NMR	a
Cr+6	Daily Max.	µg/l	NMR	a
Cu	Daily Max.	µg/l	32.7	f
F	Daily Max.	µg/l	NMR	a
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
Hg	Daily Max.	µg/l	0.050	a
MBAS	Daily Max.	µg/l	NMR	a
O&G	Daily Max.	mg/l	NMR	a
P	Daily Max.	mg/l	3.21	12 mo.
Pb	Daily Max.	µg/l	NMR	b
Pentachlorophenol	Daily Max.	µg/l	NMR	a
Phenol	Daily Max.	µg/l	NMR	a
Se	Daily Max.	µg/l	NMR	a
T.Coliforms	Geo. Mean	colonies/100ml	NMR	a
undissociated H2S	Daily Max.	µg/l	NMR	a
Zn	Daily Max.	µg/l	NMR	b

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WWTP Name: Cayey**  
**NPDES No. PR0025356**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/l	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/l	NMR	a
2-Chlorophenol	Daily Max.	µg/l	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/l	NMR	a
Ag	Daily Max.	µg/l	NMR	a
As	Daily Max.	µg/l	NMR	a
Color	Daily Max.	Pt-Co	60	12 mo.
Cr+3	Daily Max.	µg/l	NMR	a
Cr+6	Daily Max.	µg/l	NMR	a
Cu	Daily Max.	µg/l	22.6	f
F	Daily Max.	µg/l	NMR	a
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
Hg	Daily Max.	µg/l	NMR	a
NH3	Daily Max.	mg/l	2.696	12 mo.
O&G	Daily Max.	mg/l	NMR	a
P	Daily Max.	mg/l	12.3	36 mo.
Pb	Daily Max.	µg/l	NMR	a
Pentachlorophenol	Daily Max.	µg/l	NMR	a
Phenol	Daily Max.	µg/l	NMR	a
T.Coliforms	Geo. Mean	colonies/100ml	MO	a
undissociated H2S	Daily Max.	µg/l	6.7	b
Zn	Daily Max.	µg/l	221.90	b

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WWTP Name: Comerio**  
**NPDES No. PR0025658**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Ag	Daily Max.	µg/l	NMR	a
Cd	Daily Max.	µg/l	NMR	a
CN, Free	Daily Max.	µg/l	NMR	a
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
Hg	Daily Max.	µg/l	NMR	a
MBAS	Daily Max.	µg/l	NMR	a
O&G	Daily Max.	mg/l	NMR	a
T.Coliforms	Geo. Mean	colonies/100ml	NMR	a
undissociated H <sub>2</sub> S	Daily Max.	µg/l	6.4	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WWTP Name: Culebra**  
**NPDES No. PR0026549**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/l	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/l	NMR	a
2-Chlorophenol	Daily Max.	µg/l	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/l	NMR	a
Ag	Daily Max.	µg/l	NMR	a
As	Daily Max.	µg/l	NMR	a
BOD5	Monthly Avg.	kg/day	8.656	b
BOD5	Monthly Avg.	mg/l	30	b
CaCO3-Hardness	Daily Max.	mg/l	NMR	a
Cd	Daily Max.	µg/l	NMR	a
CN	Daily Max.	µg/l	NMR	a
Color	Daily Max.	Pt-Co	40	b
Enterococcus	%	colonies/100ml	NMR	a
Enterococcus	Geo. Mean	colonies/100ml	NMR	a
Flow	Daily Max.	MGD	MO	h
Flow	Monthly Avg.	MGD	MO	h
NH3	Daily Max.	mg/l	48.5	b
NO2+NO3	Daily Max.	µg/L	49164	b
O&G	Daily Max.	µg/l	MO	a
T.Coliforms	Geo. Mean	colonies/100ml	MO	a
Zn	Daily Max.	µg/l	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

h = Interim limit will be effective until effluent equals 40% plants design flow on a monthly average basis for three consecutive months

**RWWTP Name: Fajardo**  
**NPDES No. PR0026484**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Ag	Daily Max.	µg/l	NMR	a
Cd	Daily Max.	µg/l	0.70	a
CN, Free	Daily Max.	µg/l	NMR	a
Cu	Daily Max.	µg/l	MO	f
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
MBAS	Daily Max.	µg/l	NMR	a
O&G	Daily Max.	mg/l	NMR	a
T.Coliforms	Geo. Mean	colonies/100ml	NMR	a
TDS	Daily Max.	µg/l	NMR	a
undissociated H2S	Daily Max.	µg/l	NMR	a
Zn	Daily Max.	µg/l	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WWTP Name: Humacao**  
**NPDES No. PR0025399**  
**Class SC**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Ag	Daily Max.	µg/l	NMR	a
Aldrin-Dieldrin	Daily Max.	µg/l	NMR	a
As	Daily Max.	µg/l	NMR	a
B	Daily Max.	µg/l	NMR	a
Ba	Daily Max.	µg/l	NMR	a
Cd	Daily Max.	µg/l	NMR	a
Chlordane	Daily Max.	µg/l	NMR	a
CN	Daily Max.	µg/l	NMR	a
Cr	Daily Max.	µg/l	NMR	a
Cu	Daily Max.	µg/l	NMR	f
F	Daily Max.	µg/l	NMR	a
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
Heptachlor	Daily Max.	µg/l	NMR	a
Hg	Daily Max.	µg/l	NMR	a
Lindane	Daily Max.	µg/l	NMR	a
Mn	Daily Max.	µg/l	NMR	a
Pb	Daily Max.	µg/l	NMR	a
Phenolics	Daily Max.	µg/l	NMR	a
Se	Daily Max.	µg/l	NMR	a
SO4	Daily Max.	µg/l	NMR	a
T.Coliforms	Geo. Mean	colonies/100ml	NMR	a
Turbidity	Daily Max.	NTU	MO	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.



**WWTP Name: Parcelas Borinquen**  
**NPDES No. PR0025101**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Color	Daily Max.	Pt-Co	25	g
Cu	Daily Max.	µg/l	18.73	f
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
MBAS	Daily Max.	µg/l	942	g
NH3	Daily Max.	mg/L	MO	a
NO2+NO3	Daily Max.	µg/L	17688	g
O&G	Daily Max.	mg/L	NMR	a
P	Daily Max.	mg/l	4.4	g
SO4	Daily Max.	mg/L	NMR	a
T.Coliforms	Geo. Mean	colonies/100ml	MO	a
TDS	Daily Max.	mg/l	NMR	a
undissociated H2S	Daily Max.	µg/l	4.8	g

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WWTP Name: Rio Grande Estates**  
**NPDES No. PR0023264**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Ag	Daily Max.	µg/l	NMR	g
Cd	Daily Max.	µg/l	0.52	g
CN, Free	Daily Max.	µg/l	80.1	g
Color	Daily Max.	Pt-Co	33	g
Cr+6	Daily Max.	µg/l	NMR	g
Cu	Daily Max.	µg/l	158	g
Flow	Daily Max.	MGD	MO	g
Flow	Monthly Avg.	MGD	MO	g
MBAS	Daily Max.	µg/l	8525	g
NH3	Daily Max.	mg/l	51	g
O&G	Daily Max.	mg/l	NMR	g
P	Daily Max.	mg/l	4	g
TDS	Daily Max.	µg/l	NMR	g
undissociated H2S	Daily Max.	µg/l	40.2	g

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WWTP Name: Vieques**  
**NPDES No. PR0025453**  
**Class SC**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/l	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/l	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/l	NMR	a
2-Chlorophenol	Daily Max.	µg/l	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/l	NMR	a
Ag	Daily Max.	µg/l	NMR	a
As	Daily Max.	µg/l	NMR	a
BOD5	Monthly Avg.	mg/l	35.5	12 mo.
Cd	Daily Max.	µg/l	NMR	a
CN	Daily Max.	µg/l	7.2	g
Cu	Daily Max.	µg/l	81.40	f
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
Hg	Daily Max.	µg/l	0.555	g
Ni	Daily Max.	µg/l	NMR	a
NO2+NO3+NH3	Daily Max.	mg/l	66.009	g
Pb	Daily Max.	µg/l	NMR	a
Pentachlorophenol	Daily Max.	µg/l	NMR	a
Phenol	Daily Max.	µg/l	NMR	a
T.Coliforms	Geo. Mean	MPN/100ml	MO	a
Turbidity	Daily Max.	NTU	34	g
Zn	Daily Max.	µg/l	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WWTP Name: Yabucoa**  
**NPDES No. PR0021717**  
**Class SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
BOD5	Monthly Avg.	%	75	12 mo.
BOD5	Weekly Avg.	kg/day	648.21	12 mo.
BOD5	Weekly Avg.	mg/l	123.13	12 mo.
CN, Free	Daily Max.	µg/L	NMR	a
Color	Daily Max.	Pt-Co	50.0	g
Cr+6	Daily Max.	µg/l	NMR	a
Cu	Daily Max.	µg/l	91.81	f
Flow	Daily Max.	MGD	MO	f
Flow	Monthly Avg.	MGD	MO	f
Hg	Daily Max.	µg/l	NMR	a
NH3	Daily Max.	mg/l	53.094	g
O&G	Daily Max.	mg/l	MO	a
P	Daily Max.	mg/l	8.7	g
Pb	Daily Max.	µg/l	NMR	a
T.Coliforms	Geo. Mean	colonies/100ml	MO	a
TDS	Daily Max.	mg/l	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

## APPENDIX T

**WTP Name: Aguas Buenas****NPDES No. PR0022896****Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/L	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/L	NMR	a
2-Chlorophenol	Daily Max.	µg/L	NMR	a
2-Methyl-4,6-Dinitrophenol	Daily Max.	µg/L	NMR	a
As	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	NMR	f
Cu	Daily Max.	µg/L	95	f
F	Daily Max.	µg/L	NMR	a
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	NMR	a
MBAS	Daily Max.	µg/L	NMR	a
NH3	Daily Max.	mg/L	NMR	f
P	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	NMR	a
Pentachlorophenol	Daily Max.	µg/L	NMR	a
Phenol	Daily Max.	µg/L	NMR	a
Turbidity	Daily Max.	NTU	190	g

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Aibonito**  
**NPDES No. PR0022489**  
**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
BOD5	Daily Max.	mg/L	19.94	12 mo.
Cu	Daily Max.	µg/L	256	f
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	f
Pb	Daily Max.	µg/L	NMR	a
Turbidity	Daily Max.	NTU	200.18	12 mo.

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Barrancas**  
**NPDES No. PR0022501**  
**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/L	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/L	NMR	a
2-Chlorophenol	Daily Max.	µg/L	NMR	a
2-Methyl-4,6-Dinitrophenol	Daily Max.	µg/L	NMR	a
As	Daily Max.	µg/L	NMR	a
BOD5	Daily Max.	mg/L	8.88	g
Cr+6	Daily Max.	µg/L	NMR	a
Cu	Daily Max.	µg/L	145.13	f
F	Daily Max.	µg/L	NMR	a
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	f
P	Daily Max.	mg/L	1.98	a
Pb	Daily Max.	µg/L	8.22	f
Pentachlorophenol	Daily Max.	µg/L	NMR	a
Phenol	Daily Max.	µg/L	NMR	a
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	2433	g

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.



**WTP Name: Barranquitas****NPDES No. PR0022497****Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/L	NMR	a
2-Chlorophenol	Daily Max.	µg/L	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/L	NMR	a
As	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	NMR	f
Cu	Daily Max.	µg/L	488.16	f
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	0.15	f
NH3	Daily Max.	mg/L	NMR	a
P	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	234.2	f
Pentachlorophenol	Daily Max.	µg/L	NMR	a
Turbidity	Daily Max.	NTU	983	g
undissociated H2S	Daily Max.	µg/L	MO	a
Zn	Daily Max.	µg/L	289	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Caguas Sur**  
**NPDES No. PR0022888**  
**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Cu	Daily Max.	µg/L	76.15	f
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	MO	f
NH3	Daily Max.	mg/L	NMR	f
P	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	4.76	f
TDS	Daily Max.	mg/L	NMR	f
Turbidity	Daily Max.	NTU	216.52	g
Zn	Daily Max.	µg/L	122.13	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Cayey**  
**NPDES No. PR0022519**  
**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/L	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/L	NMR	a
2-Chlorophenol	Daily Max.	µg/L	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/L	NMR	a
As	Daily Max.	µg/L	NMR	a
Cd	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	NMR	f
Cu	Daily Max.	µg/L	55.56	f
F	Daily Max.	µg/L	NMR	a
F.Coliforms	Geo. Mean	colonies/100ml	NMR	a
F.Coliforms	%	%	NMR	a
Flow	Daily Max.	MGD	MO	f
P	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	5	f
Pentachlorophenol	Daily Max.	µg/L	NMR	a
Phenol	Daily Max.	µg/L	NMR	a
TDS	Daily Max.	mg/L	NMR	f
Turbidity	Daily Max.	NTU	200	g

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Cayey Farallón****NPDES No. PR0026077****Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/L	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	NMR	f
Cu	Daily Max.	µg/L	79.04	f
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	NMR	a
NH3	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	7.9	f
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	673	a
Zn	Daily Max.	µg/L	NMR	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Ceiba Sur**  
**NPDES No. PR0025119**  
**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
BOD5	Daily Max.	mg/L	25.44	g
CN	Daily Max.	µg/L	NMR	g
Cu	Daily Max.	µg/L	274.24	g
F.Coliforms	Geo. Mean	colonies/100ml	4701	g
F.Coliforms	%	%	MO	g
Flow	Daily Max.	MGD	MO	g
Hg	Daily Max.	µg/L	NMR	g
P	Daily Max.	mg/L	6.06	g
Pb	Daily Max.	µg/L	49.71	g
TDS	Daily Max.	mg/L	NMR	g
Turbidity	Daily Max.	NTU	1573	g

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Cidra**

**NPDES No. PR0022543**

**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
BOD5	Daily Max.	mg/L	12.97	g
Cu	Daily Max.	µg/L	173.7	f
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	f
P	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	13.26	f
TDS	Daily Max.	mg/L	NMR	f
Turbidity	Daily Max.	NTU	335	g

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Comerio-Rio Hondo**

**NPDES No. PR0026573**

**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
As	Daily Max.	µg/L	NMR	a
BOD5	Daily Max.	mg/L	MO	a
Color	Daily Max.	Pt-Co	MO	a
Cu	Daily Max.	µg/L	74.04	f
F.Coliforms	Geo. Mean	colonies/100ml	521	12 mo.
F.Coliforms	%	%	MO	12 mo.
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	a
P	Daily Max.	mg/L	3.74	a
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	721	a
Zn	Daily Max.	µg/L	MO	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Culebras-Cayey****NPDES No. PR0026352****Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Cu	Daily Max.	µg/L	26.90	f
F.Coliforms	Geo. Mean	colonies/100ml	NMR	a
F.Coliforms	%	%	NMR	a
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	MO	f
NH3	Daily Max.	mg/L	NMR	f
Pb	Daily Max.	µg/L	5.97	f
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	555	a
undissociated H2S	Daily Max.	µg/L	MO	a
Zn	Daily Max.	µg/L	MO	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.



**WTP Name: El Yunque****NPDES No. PR0023931****Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Ag	Daily Max.	µg/L	NMR	a
BOD5	Daily Max.	mg/L	7.46	a
Cd	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	NMR	f
Color	Daily Max.	Pt-Co	NMR	a
Cu	Daily Max.	µg/L	198.70	f
F.Coliforms	Geo. Mean	colonies/100ml	4464	a
F.Coliforms	%	%	MO	a
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	0.081	a
MBAS	Daily Max.	µg/L	NMR	a
NH3	Daily Max.	mg/L	NMR	f
Pb	Daily Max.	µg/L	NMR	a
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	3779	a
undissociated H2S	Daily Max.	µg/L	NMR	a
Zn	Daily Max.	µg/L	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

WTP Name: Espino  
 NPDES No. PR0026832  
 Water Body Class: SD

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/L	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/L	NMR	a
As	Daily Max.	µg/L	NMR	a
BOD5	Daily Max.	mg/L	MO	a
Color	Daily Max.	Pt-Co	MO	f
Cu	Daily Max.	µg/L	282.88	f
F	Daily Max.	µg/L	NMR	a
F.Coliforms	Geo. Mean	colonies/100ml	NMR	a
F.Coliforms	%	%	NMR	a
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	MO	f
MBAS	Daily Max.	µg/L	MO	f
NH3	Daily Max.	mg/L	NMR	f
P	Daily Max.	mg/L	NMR	a
Pentachlorophenol	Daily Max.	µg/L	NMR	a
SO4	Daily Max.	mg/L	NMR	f
TDS	Daily Max.	mg/L	NMR	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Fajardo (Northeast Regional)**

**NPDES No. PR0026379**

**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Guayabota****NPDES No. PR0022799****Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Cd	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	NMR	f
Cu	Daily Max.	µg/L	76.13	f
F	Daily Max.	µg/L	MO	b
F.Coliforms	Geo. Mean	colonies/100ml	NMR	a
F.Coliforms	%	%	NMR	a
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	f
P	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	10.9	f
Turbidity	Daily Max.	NTU	393	12 mo.
undissociated H2S	Daily Max.	µg/L	NMR	a
Zn	Daily Max.	µg/L	123.29	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Gurabo**  
**NPDES No. PR0026743**  
**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
BOD5	Daily Max.	mg/L	15.60	a
Cu	Daily Max.	µg/L	4528.59	f
F	Daily Max.	µg/L	NMR	a
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	f
P	Daily Max.	mg/L	7.87	a
Pb	Daily Max.	µg/L	54.17	f
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	3692	a
Zn	Daily Max.	µg/L	563.51	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Humacao-Las Piedras****NPDES No. PR0022829****Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/L	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/L	NMR	a
2-Cholorophenol	Daily Max.	µg/L	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/L	NMR	a
As	Daily Max.	µg/L	NMR	a
Cd	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	NMR	f
Cu	Daily Max.	µg/L	167	f
F	Daily Max.	µg/L	NMR	a
F.Coliforms	Geo. Mean	colonies/100ml	NMR	a
F.Coliforms	%	%	NMR	a
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	a
O&G	Daily Max.	mg/L	NMR	a
P	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	56.2	f
Pentachlorophenol	Daily Max.	µg/L	NMR	a
Phenol	Daily Max.	µg/L	NMR	a
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	1255	g
undissociated H2S	Daily Max.	µg/L	NMR	a
Zn	Daily Max.	µg/L	224.57	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Jagual**  
**NPDES No. PR0025470**  
**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Cd	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	NMR	f
F.Coliforms	Geo. Mean	colonies/100ml	MO	a
F.Coliforms	%	%	MO	a
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	0.089	f
NH3	Daily Max.	mg/L	NMR	a
P	Daily Max.	mg/L	1.24	a
Pb	Daily Max.	µg/L	26.83	f
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	325	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Juncos (Quebrada Grande)**

**NPDES No. PR0022811**

**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
BOD5	Daily Max.	mg/L	15.43	g
Cd	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	11.19	a
Cu	Daily Max.	µg/L	527.49	f
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	0.05	f
P	Daily Max.	mg/L	10.79	g
Pb	Daily Max.	µg/L	48.54	f
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	6778	g
undissociated H2S	Daily Max.	µg/L	NMR	a
Zn	Daily Max.	µg/L	560.64	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.



**WTP Name: La Plata**  
**NPDES No. PR0025755**  
**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
CN	Daily Max.	µg/L	17.88	f
Cu	Daily Max.	µg/L	128.34	f
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	10.49	f
SO4	Daily Max.	mg/L	NMR	a
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	383	12 mo.

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Luquillo (Sabana)**

**NPDES No. PR0022802**

**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Cu	Daily Max.	µg/L	75.06	f
F	Daily Max.	µg/L	NMR	f
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	f
O&G	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	10.7	f
Turbidity	Daily Max.	NTU	791	g
Zn	Daily Max.	µg/L	60.38	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Morovis-Rio Grande**

**NPDES No. PR0026611**

**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Cu	Daily Max.	µg/L	24.31	f
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	NMR	a
TDS	Daily Max.	mg/L	NMR	a
Turbidity	Daily Max.	NTU	3327	12 mo.
Zn	Daily Max.	µg/L	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Naguabo (El Duque)**

**NPDES No. PR0022853**

**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Cu	Daily Max.	µg/L	263.09	f
Flow	Daily Max.	MGD	MO	f
P	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	19.90	f
undissociated H <sub>2</sub> S	Daily Max.	µg/L	NMR	a
Zn	Daily Max.	µg/L	350.05	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Rio Blanco**

**NPDES No. PR002**

**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
Cu	Daily Max.	µg/L	87.97	f
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	f
P	Daily Max.	mg/L	NMR	g
Pb	Daily Max.	µg/L	6.5	f
SO4	Daily Max.	mg/L	NMR	a
TDS	Daily Max.	mg/L	NMR	a
Zn	Daily Max.	µg/L	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: San Lorenzo (Cerro Gordo)****NPDES No. PR0022870****Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
2,4,6-Trichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dichlorophenol	Daily Max.	µg/L	NMR	a
2,4-Dimethylphenol	Daily Max.	µg/L	NMR	a
2,4-Dinitrophenol	Daily Max.	µg/L	NMR	a
2-Chlorophenol	Daily Max.	µg/L	NMR	a
2-Methyl-4,6 Dinitrophenol	Daily Max.	µg/L	NMR	a
As	Daily Max.	µg/L	NMR	a
BOD5	Daily Max.	mg/L	43.42	g
Cd	Daily Max.	µg/L	NMR	a
CN	Daily Max.	µg/L	11.46	f
Cu	Daily Max.	µg/L	300.88	f
F	Daily Max.	µg/L	NMR	a
F.Coliforms	Geo. Mean	colonies/100ml	NMR	a
F.Coliforms	%	%	NMR	a
Flow	Daily Max.	MGD	MO	f
Hg	Daily Max.	µg/L	0.096	f
NH3	Daily Max.	mg/L	NMR	a
O&G	Daily Max.	mg/L	NMR	a
Pb	Daily Max.	µg/L	7.75	f
Pentachlorophenol	Daily Max.	µg/L	NMR	a
Turbidity	Daily Max.	NTU	434	g
Zn	Daily Max.	µg/L	NMR	a

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

**WTP Name: Yabucoa**  
**NPDES No. PR0022837**  
**Water Body Class: SD**

Parameter	Type of Limit	Units	Interim Limit	Expiration Date
BOD5	Daily Max.	mg/L	6.69	g
CN	Daily Max.	µg/L	NMR	f
Cu	Daily Max.	µg/L	193.41	f
Flow	Daily Max.	MGD	MO	f
NH3	Daily Max.	mg/L	NMR	f
Pb	Daily Max.	µg/L	24.04	f
Turbidity	Daily Max.	NTU	1668	g
Zn	Daily Max.	µg/L	119.82	f

**Legend:**

NMR = No Monitoring Required.

MO = Monitoring Only.

a = Interim Limit will be effective until the Next NPDES Permit Renewal

b = Interim Limit will be effective until the Subsequent (second renewal) NPDES Permit Renewal.

f = Interim Limit will be effective until the duration of the Consent Decree.

g = Interim Limit will be effective until substantial completion of the Capital Improvement required according to the prioritization list.

## APPENDIX U



## Appendix U

### Minimum Requirements of the Integrated Maintenance Program (IMP)

In accordance with Section XV of the Consent Decree, PRASA shall implement an Integrated Maintenance Program (IMP) to ensure proper operation and maintenance of its Facilities, and at a minimum, the IMP shall provide for the following key components:

1. Recordkeeping
  - a. Equipment Record System: The equipment record system should include:
    - An identification system for the equipment from each Facility.
    - Manufacturer's maintenance information for Facility equipment, including lubricants, recommended frequency of service, assembly drawings and information, as reference.
    - Documents (inspections, reports, equipment history, job orders, purchase orders, etc.)
2. Maintenance Planning and Scheduling
  - a. Each Facility equipment shall have maintenance schedules and procedures based on best maintenance practices and/or manufacturer's recommendations.
  - b. Periodic testing of Facility equipment, unless such action compromises the operation of the equipment and/or the Facility.
  - c. Diligent repair or replacement of defective equipment found during inspection or testing.
  - d. Identification of equipment and treatment units using tags (physical label).
  - e. Computerized system (e.g. SAP) to plan for equipment maintenance and scheduling.
3. Storeroom and Inventory System: Purchasing procedures and inventory system should ensure critical Facility equipment are readily available.
4. Maintenance Personnel Training and Organization
  - a. PRASA shall develop and design organizational structure and resource commitments related to maintenance.
  - b. Training programs shall include certification as required and manuals, either in hardcopy or electronic form, to aid in training.

- c. PRASA must provide annual refresher training to the IMP personnel in all job related matters of this program.
  - d. PRASA must provide EPA annually a certification of the training provided to their staff under the IMP.
5. Cost and Budget for Maintenance Operations: PRASA shall prepare projected costs and budget for the preventive maintenance operations.

## APPENDIX V

## Appendix V

### Minimum Requirements Corrosion Control Element of the Integrated Maintenance Program

Pursuant to Section XV of the CD (Integrated Maintenance Program), PRASA shall operate and maintain all WTP STSs, WWTPs and pump stations in accordance with the EPA-approved Integrated Maintenance Program that include a Corrosion Control Element in compliance with the following minimum requirements:

- I. Objectives
- II. Definitions
- III. Needs Assessment including:
  - a. Variables influencing corrosion (e.g., generation of hydrogen sulfide)
  - b. Mechanism to identify areas subject to corrosion at STSs, WWTPs and PS including the following information:
    - i. location, description, identification number and date of installation (when known)
  - c. Guidelines for assessing corrosion damage
- IV. Responsibilities for:
  - a. Operations personnel
  - b. Maintenance personnel
  - c. Managers personnel
- V. Corrosion Control Process Flow
- VI. Preventive Measures
  - a. Preventive maintenance tasks to be followed and frequency.
  - b. Visual inspection (e.g., condition of metal components, presence of exposed rebar, loss of concrete from the pipe crown or walls)
  - c. Inspection records – including, but not limited to, procedures 828 (Form 48B), 816 (Form AAA-48), 810 (Form 500B)
- VII. Corrective Measures
  - a. Record of work order requests – including, but not limited to, Form AAA-340-A
  - b. Corrosion control methods (e.g., coating and lining, material selection, corrosion inhibitors)
    - i. Basis for the selection of a corrosion control method
  - c. Corrective Maintenance Plans
    - i. Description of corrective measures to be taken when finding a structure and/or equipment affected by corrosion.
    - ii. Repairs (requirements when contracting equipment repairs)
- VIII. Training
  - a. Maintenance Managers training
  - b. Operations Personnel
  - c. Maintenance Coordinators
  - d. Maintenance Crew
  - e. Annual certifications to EPA
- IX. Recordkeeping

## APPENDIX W

## Appendix W

### Minimum Requirements for PRASA's Sewer System Spill Response and Clean-Up Plan (SRCP)

The Puerto Rico Aqueduct and Sewer Authority (PRASA) shall update and continue to implement its Spill Response and Clean-up Plan (SRCP) to comply with the following minimum requirements:

#### 1. SRCP Applicability:

- a. The applicability shall be written as mandated in this Consent Decree.

#### 2. Goals:

PRASA shall clearly establish the goals of the SRCP for both sanitary sewer systems: separate and combined. Among the various goals that PRASA shall document in this part are:

- a. Take all steps to stop sanitary sewer overflow (SSO) (including all sewer backups caused by the Sewer System to any buildings as well as to surface waters or storm sewers), Unauthorized Releases and Dry Weather Overflows, and control Combined Sewer Overflow (CSO) events.
- b. Take all steps to mitigate the impacts of the above referenced events, including cleanup of identified residues (e.g., sewage solids, paper, rags, rubber products, etc.).
- c. Provide notifications to all concerned parties as applicable (e.g., Department of Health, EPA, EQB, etc.) within the allocated time under the National Pollutant Discharge and Elimination System (NPDES) permit.
- d. Develop a SRCP document and have it available to all the Sewer System responsible parties, including managers, supervisors, field crews, etc.

#### 3. Definitions: PRASA must define key terms of the SRCP according to current EPA regulations and policies.

#### 4. Staff Responsibilities:

- a. Organizational Structure
- b. Staffing: Regional and Central
- c. Customer Service:
  - i. PRASA shall develop Geographic Information Systems (GIS) maps to locate affected SSO/CSOs areas.
  - ii. PRASA shall develop a web site platform for people to enter citizen complaints regarding SSOs/CSOs.

#### 5. SSOs/CSOs Notification and Reporting Procedures:

- a. Dry Weather SSOs (including discharges from CSOs)
- b. Wet Weather SSOs (including discharges from CSOs as required by the Puerto Nuevo RWWTP NPDES permit and the S2OMP)

- c. Procedure for notifications: 24 Hours, 5 Days
- d. SSO/CSO Closure and Update Report
- e. Procedures for notification of an anticipated Bypass as per the NPDES permit

**6. Priorities to Address Regarding Combined and Separate Sanitary Sewer Overflows:**

- a. SSO/CSO discharge to a sensitive water body or sensitive area (e.g., San Juan Bay Estuary, Environmental Justice communities, bathing areas, etc.)
- b. SSO/CSO affecting a raw water intake from a water treatment plant
- c. SSO/CSO discharging to other water receiving bodies
- d. SSO/CSO events that requires major repair activities
- e. SSO/CSO or line blockages generating wastewater backups into residences, hospitals, schools, day cares, nursing homes, etc.
- f. SSO/CSO events discharging high volumes of wastewater and posing an imminent threat to the human health and safety.

**7. Response and Investigations:**

- a. PRASA needs a database to log all SSOs and sewer backups (to homes/businesses/all structures) and also implement a way to map these locations in GIS (either through address matching, or Global Positioning System (GPS)). This will allow PRASA/EPA to identify areas/pipe segments with recurring backup/SSO problems.
- b. Information management – PRASA shall continue to maintain and update an information management system, which handles all citizen complaints as well as PRASA’s subsequent investigation results and applicable notification reports. This system tracks but is not limited to, all reported discharges from the Sewer System.

**8. Clean-Up and Mitigation Measures:**

- a. Cleaning of Overflowed Wastewater and Solids Standard Operating Procedures
  - i. Sanitary Sewer Backups (into residences, commerce, industry, government)
  - ii. SSOs/CSOs cleaning and mitigation
- b. Availability and/or maintenance of cleaning equipment and tools for sewer and overflowed solids/debris disposal
- c. Implement mitigation measures (e.g., chlorination, installation of absorbents pads, etc.) when the SSOs/CSOs demand it.

**9. Public Notification:**

- a. Criteria and strategies for public notification of SSO/CSOs.
- b. Procedures for notifying appropriate federal and local agencies, municipalities and other organizations (e.g., San Juan Bay Estuary Program, etc.)

**10. Personnel Training:**

- a. Training Requirements
  - i. Training requirements shall be applicable for both: PRASA employees and private contractors
  - ii. Training modules shall cover all aspects of the SRCP, including applicable forms and procedures
- b. Training to Responders/Compliance Officials
- c. Emergency Operations for SSOs/CSOs (Emergency Response Plans)
- d. Personnel shall receive refresher training at frequency interval not to exceed two years
- e. Bi-annual training certification to be provided to EPA

**11. Communication:** PRASA must establish how the SRCP will be communicated to the pertinent personnel, including, but not limited to:

- a. Managers
- b. Supervisors
- c. Field Crews
- d. SSOMP Crews
- e. Contractors

**12. SRCP Review and Update:**

- a. PRASA must establish procedures for reviewing and updating the SRCP Plan.



## APPENDIX X

## Appendix X

## MONTHLY AVERAGE PERMITTED FLOW

Region	Plant Name	NPDES	Permit Limit	105% Limit
ESTE	Aguas Buenas WWTP	PR0020273	0.60	0.63
ESTE	Aibonito WWTP	PR0025461	1.80	1.89
ESTE	Barranquitas WWTP	PR0025861	0.60	0.63
ESTE	Caguas WWTP	PR0025976	40.00	42.00
ESTE	Cayey WWTP	PR0025356	14.50	15.23
ESTE	Comerio WWTP	PR0025658	1.00	1.05
ESTE	Culebra WWTP	PR0026549	0.20	0.21
ESTE	Fajardo Nueva WWTP	PR0026484	9.20	9.66
ESTE	Humacao WWTP	PR0025399	8.24	8.65
ESTE	Parcelas Borinquen WWTP	PR0025101	0.30	0.32
ESTE	Rio Grande Estates WWTP	PR0023264	0.75	0.79
ESTE	Vieques WWTP	PR0025453	0.50	0.53
ESTE	Yabucoa WWTP	PR0021717	1.50	1.58
METRO	Bayamón WWTP	PR0023728	52.00	54.60
METRO	Carolina WWTP	PR0023752	45.00	47.25
METRO	Puerto Nuevo WWTP	PR0021555	80.00	84.00
NORTE	Arecibo WWTP	PR0023710	10.00	10.50
NORTE	Barceloneta WWTP	PR0021237	8.33	8.75
NORTE	Camuy-Hatillo WWTP	PR0023744	3.02	3.17
NORTE	Ciales WWTP	PR0020427	0.60	0.63
NORTE	Corozal WWTP	PR0020451	1.25	1.31
NORTE	Dorado WWTP	PR0020460	4.05	4.25
NORTE	Jayuya Nueva WWTP	PR0026531	1.00	1.05
NORTE	Lares WWTP	PR0025879	1.21	1.27
NORTE	Morovis WWTP	PR0020711	1.70	1.79
NORTE	Naranjito WWTP	PR0020737	0.80	0.84
NORTE	Toa Alta WWTP	PR0020869	0.75	0.79
NORTE	Unibon WWTP	PR0024902	0.19	0.20
NORTE	Utuaado New WWTP	PR0026603	2.00	2.10
NORTE	Vega Alta WWTP	PR0020923	2.00	2.10
NORTE	Vega Baja WWTP	PR0021679	4.20	4.41
OESTE	Aguadilla WWTP	PR0023736	8.00	8.40
OESTE	Isabela WWTP	PR0022250	2.00	2.10
OESTE	Lajas WWTP	PR0020575	1.20	1.26
OESTE	Las Marías WWTP	PR0020583	0.25	0.26
OESTE	Maricao WWTP	PR0020648	0.18	0.18
OESTE	Mayagüez WWTP	PR0023795	28.00	29.40
OESTE	San Germán WWTP	PR0020818	8.00	8.40
OESTE	San Sebastian (NEW) WWTP	PR0025551	1.00	1.05

## Appendix X

## MONTHLY AVERAGE PERMITTED FLOW

Region	Plant Name	NPDES	Permit Limit	105% Limit
OESTE	San Sebastian (OLD) WWTP	PR0020851	0.40	0.42
SUR	Adjuntas WWTP	PR0020214	0.55	0.58
SUR	Alturas de Orocovis WWTP	PR0023001	0.05	0.05
SUR	Guánica WWTP	PR0020486	2.05	2.15
SUR	Guayama WWTP	PR0025445	10.00	10.50
SUR	Guayanilla WWTP	PR0020494	0.62	0.65
SUR	Maunabo WWTP	PR0020656	1.00	1.05
SUR	Orocovis WWTP	PR0020745	0.50	0.53
SUR	Patillas WWTP	PR0020753	1.10	1.16
SUR	Peñuelas WWTP	PR0020761	0.75	0.79
SUR	Ponce WWTP	PR0021563	27.00	28.35
SUR	Santa Isabel WWTP	PR0023761	5.50	5.78
SUR	Yauco WWTP	PR0021661	4.50	4.73