UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT NUMBER
PR0020583

In compliance with the provisions of the Clean Water Act, as amended, 33 U.S.C. ' 1251 et. seq. (the "Act"),

Puerto Rico Aqueduct and Sewer Authority
P.O. Box 7066
Barrio Obrero Station
San Juan, Puerto Rico 00916

hereinafter referred to as "the permittee" is authorized to discharge from a facility named **Las Marías Wastewater Treatment Plant** located at:

State Road No. 119 Km. 24.5
Las Marías, Puerto Rico

to receiving waters named:

Arenas Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I and II hereof. All references to Title 40 of the Code of Federal Regulations are to regulations that are in effect on the effective date of this permit, including all amendments thereto published in the Federal Register. Unless otherwise specified herein, all terms are defined as provided in the applicable regulations under Title 40 of the Code of Federal Regulations.

This permit shall become effective on **December 1, 2012**, which is the effective date of the permit (EDP).

This permit and the authorization to discharge shall expire on **November 30, 2017.**

Signed this September 27th day of 2012,

José C. Font,
Acting Director
Caribbean Environmental
Protection Division

TABLE I
REQUIRED EFFLUENT LIMITATIONS

EFFLUENT CHARACTERISTICS	DISCHARGE LOAD ALLOCATIONS		DISCHARGE CONCENTRATIONS LIMITATIONS		MINIMUM PERCENT REMOVAL LIMITATION
	Average Monthly	Average Weekly	Average Monthly	Average Weekly	Average Monthly
	(kg/day)	(kg/day)	(mg/l)	(mg/l)	
5-Day-20°C Biochemical Oxygen Demand[1]	13.26	42.62	14*	45	85%
Suspended[1] Solids	28.42	42.62	30	45	85%

Flow shall be reported as a monthly average and daily maximum.
Measurement frequency shall be continuous.

1 Measurement frequency shall be Twice per Month using composite sampling.

* According to EQB's Intent to Issue a WQC.

TABLE A-1 **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

During the period beginning on the EDP and lasting through the expiration date of the permit, the permittee is authorized to discharge from outfall serial number 001 (treated wastewaters). Such discharge shall be limited and monitored by the permittee as specified below:

Receiving Water Classification: SD

Effluent Characteristics	Gross Discharge Limitations		Monitoring Requirements	
	Monthly Avg.	Daily Max	Measurements Frequency	Sample Type
Arsenic (As) (µg /L) [2,3]		10	Monthly	Grab
BOD_5 (mg/L) α [1,2,3,4]	See Table I		Twice per Month	Composite
Cadmium (Cd) (µg/L) [2,3]		0.30	Monthly	Grab
Color (Pt-Co Units) [2,3]		15	Monthly	Grab
Copper (Cu) (µg/L) [2,3]		10.6	Monthly	Grab
Cyanide, Free (CN) (µg/L) ξ [2,3]		5.2	Quarterly	Grab
Dissolved Oxygen (mg/L) α [1,2,3,4,6]	Shall contain not less than 4.0 mg/L.		Daily	Grab
Fecal Coliforms (colonies/100 mL) [1,2,3]	The Coliform geometric mean of a series of representative samples (at least five samples) of the waters taken sequentially shall not exceed 200 colonies/100 mL. Not more than 20% of the samples shall exceed 400 colonies/100 mL.		Monthly	Grab
Flow m^3/day (MGD) [1,3,5]		946.35 (0.25)	Continuous Recording	
Mercury (Hg) (µg/L) α φ [2,3,4,6]		0.163	Monthly	Grab

Nitrate plus Nitrite (as N) (µg/L) α [2,3,4,6]	21,200	Monthly	Grab
Oil and Grease (mg/L) [2,3]	The waters of Puerto Rico shall be substantially free from floating non-petroleum oils and greases as well as petroleum derived oils and greases.	Twice per Month	Grab
pH (SU) [2,3]	Shall always lie between 6.0 – 9.0	Daily	Grab
Residual Chlorine (mg/L) γ [2,3]	0.50	Daily	Grab
Selenium (Se) (µg/L) [2,3]	5.0	Quarterly	Grab
Solids and Other Matters [2,3]	The waters of Puerto Rico shall not contain floating debris, scum or other floating materials attributable to discharge in amounts sufficient to be unsightly or deleterious to the existing or designed uses of the water body.	---	---
Sulfide (Undissociated H_2S) (µg/L) δ [2,3]	2	Quarterly	Grab
Surfactants (as MBAS) (µg/L) α [1,2,3,4,6]	380	Monthly	Grab
Suspended, Colloidal or Settleable Solids (mL/L) [1,2,3]	Solids from wastewaters source shall not cause deposition in, or be deleterious to the existing or designated uses of the waters.	Daily	Grab
Taste and Odor-producing Substances [2,3]	Shall contain none in amounts that will render any undesirable taste and/or to edible aquatic life.	---	---

Effluent Characteristics	Gross Discharge Limitations		Monitoring Requirements	
	Monthly Avg.	Daily Max	Measurements Frequency	Sample Type
Temperature °F (°C) [2,3]	Except for natural causes no heat may be added to the waters of Puerto Rico, which would cause the temperature of any site to exceed 90 °F (32.2°C).		Daily	Grab
Total Ammonia (NH_3) (mg/L) α [2,3,4,6]		15.000	Monthly	Grab
Total Coliforms (colonies/100 mL) [1,2,3]	The Coliforms geometric mean of a series of representative sample (at least five samples) of the water taken sequentially in a given instance shall not exceed 10,000 colonies/100 mL.		Monthly	Grab
Total Phosphorus (P) (mg/L) α [2,3,4,6]		5.00	Monthly	Grab
Total Suspended Solids (mg/L) [3]		See Table I	Twice per Month	Composite
Turbidity (NTU) [2, 3]		50	Monthly	Grab
Special Conditions	See attached sheet, which contains special conditions that constitute part of this certification.			

1, 2, 3, 4, 5, 6 and 7 see page 15 of special conditions.

To comply with the monitoring requirements specified above, samples shall be taken at the outfall of discharge serial number 001.

All flow measurements shall achieve accuracy within the range of plus or minus (±) 10%.

α A Waste Load Allocation (WLA) was performed in order to develop the water quality based effluent limitation.

γ See Special Conditions 5 and 6.

φ See Special Condition 9.

δ See Special Condition 10.

ξ The samples shall be analyzed using the method approved by EPA in letter of February 20, 2007.

TABLE A-2 AMBIENT MONITORING REQUIREMENTS
WASTE LOAD ALLOCATION (WLA) MONITORING REQUIREMENTS

The EQB has performed a WLA pursuant to Rule 1310 of the PRWQSR. During the period beginning on EDP + 60 days and lasting through one (1) year, after which the monitoring shall be conducted annually, the permittee shall perform ambient monitoring at the immediate vicinity[Φ] of the discharge station and at the background[Ψ] monitoring station as specified below. Within thirty (30) days of completion of the one year monitoring period, the permittee shall submit a report to EQB and EPA containing the ambient monitoring results obtained as well as the monthly monitoring results obtained during the same time period at the sampling point for discharge 001 for the below parameters. Based on the evaluation of the results obtained, EQB shall determine if the effluent limitations established shall remain as they are or if it is necessary to re-open the WQC to modify (increase or decrease) the effluent limitation for one (1) or more of the below parameters.

Receiving Water Name and Classification: Arenas Creek, SD

	Monitoring Requirements	
Parameters	**Measurements Frequency**	**Sample Type**
Mercury (Hg) (µg/L)	Monthly	Grab
Nitrate + Nitrite (as N) (µg/L)	Monthly	Grab
Surfactants (as MBAS) (µg/L)	Monthly	Grab
Total Phosphorous (P) (mg/L)	Monthly	Grab

Notes:

1 The immediate vicinity of the discharge station shall be located sixty six (66) meters downstream from discharge 001.
2 The background sampling station shall be located five (5) meters upstream from discharge 001.

TABLE A-3 MODEL CALIBRATION MONITORING REQUIREMENTS

During the period beginning on EDP + 60 days and lasting through one (1) year, the permittee shall implement a monitoring program to obtain the necessary data required to calibrate the MULSMP mathematical model as specified below. Sampling for all parameters shall be performed on the same day. Within thirty (30) days of completion of the one year monitoring program, the permittee shall submit a report to EQB and EPA containing the results obtained as well as the monthly monitoring results obtained during the same time period at the sampling point for discharge 001 for the below parameters.

Receiving Water Name and Classification: Arenas Creek, SD

	Monitoring Requirements		
Parameters	**Measurement Frequency**	**Sample Type**	**Location**
BOD_5 (mg/L)	Quarterly	Composite*	A, B, C
BOD_u (mg/L)	Quarterly	24 – Hour Composite	A
Dissolved Oxygen (mg/L)	Quarterly	Grab	A, B, C
Flow (MGD, cfs)	Quarterly	Instantaneous	B, D
pH (SU)	Quarterly	Grab	A, B, C
Temperature (^{o}F)	Quarterly	Grab	A, B, C
Total Ammonia (NH_3) (mg/L)	Quarterly	Composite*	A, B, C
Velocity (Avg.) (ft/s)	Quarterly	Instantaneous	B, D

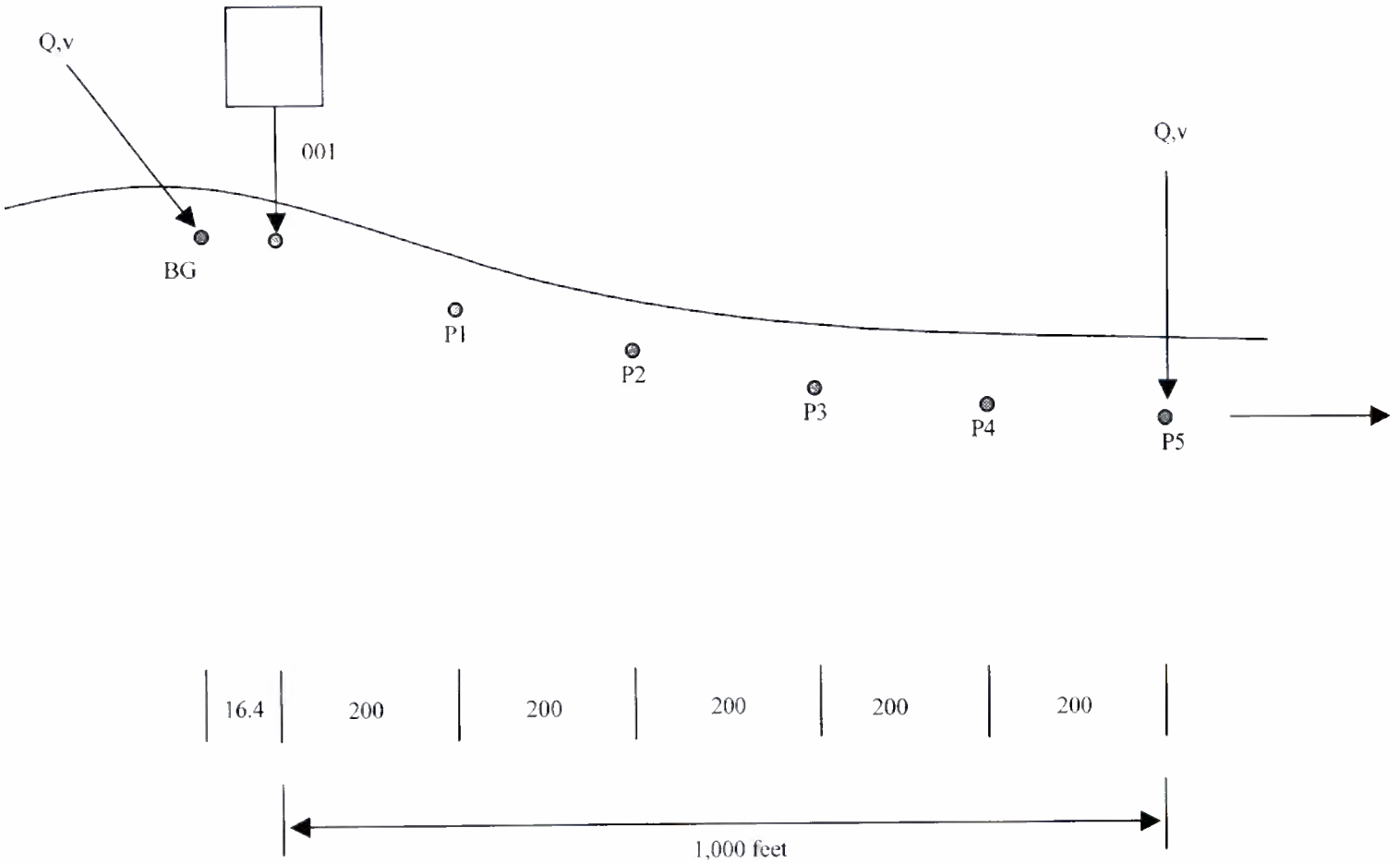
Notes:

* Samples shall be taken at (1) one hour intervals for (6) six consecutive hours. These shall be grab samples that will be mixed in equal portions to prepare a composite sample at each one of the required locations.

Sampling Locations:

A = Point of discharge 001.
B = Background station, located five (5) meters upstream from discharge 001.
C = Five (5) points downstream of the discharge 001 along a receiving water segment of one thousand (1,000) feet, as shown in Figure 1 (Page No. 11).
D = Point 5, located one thousand (1,000) feet downstream of the discharge 001.

FIGURE - 1



A. SPECIAL CONDITIONS

These special conditions are an integral part of the permit:

1. The flow of discharge 001 shall not exceed the limitation of 946.35 m^3/day (0.25 MGD) as daily maximum. No increase in flow of discharge 001 shall be authorized without a recertification from the Environmental Quality Board (EQB). [1,5]

2. No changes in the design or capacity of the treatment system will be permitted without the previous authorization of EQB. [5]

3. Prior to the construction of any additional treatment system, or the modification of the existing one, the permitee shall obtain the approval from EQB of the engineering report, plans and specifications. [5]

4. The permittee shall install, maintain and operate all water pollution control equipment in such manner as to be in compliance with the applicable Rules and Regulations. [1,3]

5. No toxic substances shall be discharged, in toxic concentrations, other than those allowed as specified in the NPDES permit. Those toxic substances included in the permit renewal application, but not regulated by the NPDES permit, shall not exceed the concentrations specified in the applicable regulatory limitations. [2,3]

6. The waters of Puerto Rico shall not contain any substance attributable to discharge 001, at such concentration which, either alone or as result of synergistic effects with other substances, is toxic or produces undesirable physiological responses in human, fish or other fauna or flora. [2]

7. The discharge 001 shall not cause the presence of oil sheen in the receiving water body. [2]

8. All sample collection, preservation, and analysis shall be carried out in accordance with the Title 40 of the Code of Federal Regulations (40 CFR), Part 136. A licensed chemist authorized to practice the profession in Puerto Rico shall certify all chemical analyses. All bacteriological tests shall be certified by a microbiologist or licensed medical technologist authorized to practice the profession in Puerto Rico. [1,3]

9. The samples taken for the analysis of mercury shall be analyzed using the analytical method approved by the Environmental Protection Agency (EPA) with the lowest possible detection level, in accordance with Rule 1306.8 of the Puerto Rico Quality Standards Regulation (PRWQSR), as amended. [3]

10. The permittee shall use the approved EPA analytical method, with the lowest possible detection limit, in accordance with the 40 CFR, Part 136 for Sulfide (as S). Also, the permittee shall