United States Environmental Protection Agency
Region 2
Caribbean Environmental Protection Division
City View Plaza II–Suite 7000, #48 Rd. 165 km 1.2
Guaynabo, Puerto Rico 00968-8069

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
Puerto Rico Public Building Authority
Espino Ward Secondary School
PERMIT No. PR0024287

This Fact Sheet sets forth the principle facts and technical rationale that serve as the legal basis for the requirements of the accompanying draft permit. The draft permit has been prepared in accordance with Clean Water Act (CWA) section 402 and its implementing regulations at Title 40 of the *Code of Federal Regulations* (CFR), Parts 122 through 124, and the final Water Quality Certificate (WQC) issued by the Puerto Rico Environmental Quality Board (EQB) pursuant to CWA section 401 requirements.

Pursuant to 40 CFR 124.53, the Commonwealth of Puerto Rico must either grant a certification pursuant to CWA section 401 or waive this certification before the U.S. Environmental Protection Agency (EPA) may issue a final permit. On February 10, 2016, EQB provided in the WQC that the allowed discharge will not cause violations to the applicable water quality standards at the receiving water body if the limitations and monitoring requirements in the WQC are met. In accordance with CWA section 401, EPA has incorporated the conditions of the final WQC into the draft permit. The WQC conditions are discussed in this Fact Sheet and are no less stringent than allowed by federal requirements. Additional requirements might apply to comply with other sections of the CWA. Review and appeals of limitations and conditions attributable to the WQC were made through the applicable procedures of the Commonwealth of Puerto Rico and not through EPA procedures.

PART I. BACKGROUND

A. Permittee and Facility Description

The Puerto Rico Public Building Authority (referred to throughout as the Permittee) has applied for a renewal of its National Pollutant Discharge Elimination System (NPDES) permit. The Permittee is discharging pursuant to NPDES Permit No. PR0024287**.** The Permittee submitted Application Form 1 dated May 29, 2014 and Form 2C dated May 29, 2014, and applied for an NPDES permit to discharge treated wastewater from the Espino Ward Secondary School in San Lorenzo, Puerto Rico, called the facility. The facility is classified as a minor discharger by EPA in accordance with the EPA rating criteria.

The Permittee owns and operates an educational institution. Attachment A of this Fact Sheet provides a map of the area around the facility and a flow schematic of the facility.

The treatment system consists of a publicly owned treatment works (POTW) with secondary treatment consisting of screening, activated sludge, sedimentation, filtration and chlorination. The plant has an average design capacity of 0.027 MGD and it is designed to remove 85% of BOD_5 and TSS.

Sludge is disposed of offsite.

Summary of Permittee and Facility Information

Permittee	Puerto Rico Public Building Authority
Facility contact, title, phone	Ricardo Pérez, Acting Director, 787-722-0101
Permittee (mailing) address	PO BOX 41029 Minillas Station, San Juan, PR 00940
Facility (location) address	Road 181, KM 12.4 Espino Ward, San Lorenzo, PR 00754
Type of facility	POTW
Pretreatment program	N/A
Facility monthly average flow	.027 MGD
Permitted flow	.027 MGD
Facility classification	Minor

B. Discharge Points and Receiving Water Information

Wastewater is discharged from Outfall 001 to the Emajagua River, a water of the United States**.** The draft permit authorizes the discharge from the following discharge point(s):

Outfall	Effluent description	Outfall latitude	Outfall longitude	Receiving water name and classification
001	Domestic sanitary flow from an educational institution	18°, 07′, 2.22″ N	65°, 59′, 23.94″ W	Emajagua River, SD

As indicated in the Puerto Rico Water Quality Standards (PRWQS) Regulations, the designated uses for Class SD receiving waters include:

1. raw source of public water supply
2. propagation and preservation of desirable species, including threatened or endangered species
3. primary and secondary contact recreation

CWA section 303(d) requires the Commonwealth of Puerto Rico to develop a list of impaired waters, establish priority rankings for waters on the list, and develop TMDLs for those waters. The receiving water has not been determined to have water quality impairments for one or more of the designated uses as determined by section 303(d) of the CWA.

C. Mixing Zone/Dilution Allowance

A mixing zone or dilution allowance has not been authorized for the discharger.

D. Compliance Orders/Consent Decrees

The Permittee does not have any compliance order or consent decrees that affect this permit action.

E. Summary of Basis for Effluent Limitations and Permit Conditions - General

The effluent limitations and permit conditions in the permit have been developed to ensure compliance with the following, as applicable:

- NPDES Regulations (40 CFR Part 122)
- Puerto Rico Water Quality Standards (PRWQS) (August 2014)
- Secondary Treatment Requirements (40 CFR Part 133)
- Region 2 Antibacksliding Policy (August 10, 1993)
- Puerto Rico Environmental Quality Board Water Quality Certificate (PREQB WQC)

PART II. RATIONALE FOR EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

CWA section 301(b) and 40 CFR 122.44(d) require that permits include limitations more stringent than applicable technology-based requirements where necessary to achieve applicable water quality standards. In addition, 40 CFR 122.44(d)(1)(i) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that cause, have the reasonable potential to cause, or contribute to an exceedance of a water quality criterion, including a narrative criterion. The process for determining reasonable potential and calculating water quality-based effluent limits (WQBELs) is intended to protect the designated uses of the receiving water, and achieve applicable water quality criteria. Where reasonable potential has been established for a pollutant, but there is no numeric criterion for the pollutant, WQBELs must be established using (1) EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR 122.44(d)(1)(vi).

The effluent limitations and permit conditions in the permit have been developed to ensure compliance with all federal and state regulations, including PRWQS. The basis for each limitation or condition is discussed below.

A. Effluent Limitations

The permit establishes both Technology-based Effluent Limitations (TBELs) and WQBELs for several pollutants and the basis for these limitations are discussed below**.**

1. **Flow:** An effluent limitation for flow has been established in the permit. Monitoring conditions are applied pursuant to 40 CFR 122.21(j)(4)(ii) and the WQC.
2. **Nitrogen:** The effluent limitation is based on the water quality standard for SD waters as specified in Rules 1303 and 1306 of the PRWQS.
3. **5-Day Biochemical Oxygen Demand (BOD_5):** The effluent concentration and percent removal limitations are based on technology-based secondary treatment standards for publicly owned treatment works (POTWs) specified in 40 CFR 133.102(a). The permit also requires influent monitoring and reporting in accordance with 40 CFR 122.44(i) to meet the requirement of the percent removal limitation (see section C.1.- Monitoring Requirements - of this Part).
4. **Color:** An effluent limitation for color is based on Rules 1303 and 1306 of PRWQS, and the WQC**.**
5. **Copper:** An effluent limitation for copper of 8.3 µg/l is based on Rules 1303 and 1306 of PRWQS, and the WQC**.** See Part II.D of this fact sheet for more information.
6. **Dissolved Oxygen (DO):** The effluent limitation is based on the water quality criterion for Class SD waters as specified in Rules 1303 and 1306 of PRWQS, and the WQC**.**
7. **Fecal Coliforms:** The discharge consists of domestic sewage that is a source of pathogens. To ensure that the recreational use of the water body is met, effluent limitations for fecal coliform are established in the permit and are based on the water quality criterion for Class SD waters as specified in Rules 1301, 1303 and 1306 of PRWQS, and the WQC**.** Consistent with the expression of the water quality criteria for fecal coliform, EPA establishes a monitoring frequency of 5 grab samples per month to calculate a geometric mean and to monitor and report the single sample result of each of the 5 samples to comply with the effluent limitation of no more than 20 percent of the single samples must be above the single-sample maximum of 400 colonies per 100 ml.
8. **Oil and Grease.** The narrative limitation for oil and grease is based on the water quality standard as specified in Rules 1303 and 1306 of PRWQS and the WQC.
9. **pH:** The effluent limitation for pH based on technology-based secondary treatment standards for POTWs specified in 40 CFR 133.102(c) is 6.0-9.0 SU, which is equally stringent to the effluent limitation for pH based on the water quality standard for Class SD waters as specified in Rule 1303 of PRWQS.
10. **Residual Chlorine, Total (TRC):** The effluent limitation is based on the water quality standard for SD waters as specified in Rules 1303 and 1306 of the PRWQS and the WQC.
11. **Sulfide:** The effluent limitation is based on the water quality standard for Class SD waters as specified in Rules 1303 and 1306 and the WQC.

12. **Surfactants (as MBAS):** The effluent limitation for surfactants is based on the water quality standard for Class SD waters as specified in Rules 1303 and 1306 and the WQC.
13. **Temperature:** The effluent limitation for temperature is based on the water quality criterion for Class SD waters as specified in Rules 1303 and 1306 of PRWQS, and the WQC**.**
14. **Total Coliforms (colonies/100 mL):** The effluent limitation for temperature is based on the water quality criterion for Class SD waters as specified in Rules 1301, 1303 and 1306 of PRWQS, and the WQC**.**
15. **Total Suspended Solids (TSS):** The effluent concentration and percent removal limitations are based on technology-based secondary treatment standards for POTWs specified in 40 CFR 133.102(b). The permit also requires influent monitoring and reporting in accordance with 40 CFR 122.44(i) to meet the requirement of the percent removal limitation (see section C.1. – Monitoring Requirements – of this fact sheet).
16. **Turbidity.** The effluent limitation of 50 NTU for turbidity is based on the water quality standards for Class SD waters as specified in Rules 1303 and 1306 of the PRWQS and the WQC.
17. In accordance with the EPA Region 2 Antibacksliding Policy, compliance history with their permit limits and the WQC, the monitoring and reporting requirements for the following pollutants have been removed from the permit:
    a. Fluoride
    b. Arsenic
    c. Pentachlorophenol
    d. 2,4,6-Trichlorophenol
    e. 2,4-Dinitrophenol
    f. 2-Methyl-4,6-Dinitrophenol

B. Effluent Limitations Summary Table

1. Outfall Number 001

Parameter	Units	Effluent limitations					
		Averaging period	Highest Reported Value (1)	Existing limits	Interim limits	Final limits	Basis
Flow	MGD	Daily maximum	.026	0.027	--	0.027	WQBEL
Ammonia, Total (NH_3)	ug/l	Average monthly	2.5	monitor	--	monitor	WQBEL
Mercury	ug/l	Daily maximum	0.01	.012	--	.05	WQBEL
BOD_5	mg/l	Monthly average Weekly average	3.7 20	30 mg/l 45 mg/l	--	30 mg/l 45 mg/l	TBEL
	Minimum % removal	Average monthly	90%	85%	--	85%	TBEL
Color	(Pt-Co units)	Daily maximum	6.00	15	--	15	WQBEL
Copper (Cu)	ug/l	Daily maximum	24.92	6.0	--	8.3	WQBEL
Dissolved oxygen (DO)	mg/l	Daily maximum	7.0	Shall not contain less than 5.0	--	Shall not contain less than 5.0	WQBEL

Parameter	Units	Effluent limitations					
		Averaging period	Highest Reported Value (1)	Existing limits	Interim limits	Final limits	Basis
Fecal Coliforms	colonies/ 100 ml	Monthly average	116	Geometric mean of 5 samples shall not exceed 200	--	Geometric mean of 5 samples shall not exceed 200	WQBEL
	colonies/ 100 ml	Monthly average	48%	Not more than 20% of samples shall exceed 400	--	Not more than 20% of samples shall exceed 400	WQBEL
Nitrogen, Total (NO_3, NO_2, TKN)	ug/l	Daily maximum	--	--	--	1,700	WQBEL
pH	SU	Daily maximum	6.9 / 8.0	Shall always lie between 6.0 – 9.0	--	Shall always lie between 6.0 – 9.0	WQBEL
Phosphorus (Total)	ug/l	Daily maximum	2,480	1,000	--	160	WQBEL
Residual Chlorine	mg/l	Daily maximum	0.47	0.5	--	.0075	WQBEL
	ug/l	Daily maximum	470	500	--	7.5	WQBEL
Sulfide	ug/l	Daily maximum	3.0	2.0	--	2.0	WQBEL
Surfactants (as MBAS)	ug/l	Daily maximum	70	100	--	100	WQBEL
Temperature	°F	Daily maximum	85.4	90	--	90	WQBEL
	°C	Daily maximum	29.9	32.2	--	32.2	WQBEL
Total Coliforms	(colonies/ 100 mL)	Monthly average	5,283	Geometric mean of 5 samples shall not exceed 10,000		Geometric mean of 5 samples shall not exceed 10,000	WQBEL
Total Suspended Solids	mg/l	Monthly average Weekly average	10.75 44	30 45	--	30 45	TBEL
	minimum % removal	Average monthly	77.1%	85%	--	85%	TBEL
Turbidity	NTU	Daily maximum	7.36	50	--	50	WQBEL

Notes, Footnotes and Abbreviations

Note: Dashes (--) indicate there are no effluent data, no limitations, or no monitoring requirements for this parameter.
(1) Wastewater data from May 29, 2014 application and effluent charts from EPA's Enforcement and Compliance History Online (ECHO): from 01/31/2015 through 5/31/2017.

2. Outfall Number 001 Narrative Limits

In accordance with 40 CFR 122.44(d), the permit establishes the following narrative limitations.

i. The waters of Puerto Rico must not contain any substance, attributable to the discharge at such concentration which, either alone or as result of synergistic effects with other substances, is toxic or produces undesirable physiological responses in humans, fish, or other fauna or flora.

ii. The waters of Puerto Rico shall be substantially free from floating non-petroleum oils and greases as well as petroleum-derived oils and greases.

iii. The waters of Puerto Rico must not contain floating debris, scum, or other floating materials attributable to discharges in amounts sufficient to be unsightly or deleterious to the existing or designated uses of the water body.

iv. Solids from wastewater sources must not cause deposition in or be deleterious to the existing or designated uses of the waters.

v. Taste and odor-producing substances must not be present in amounts that will interfere with primary contact recreation, or will render any undesirable taste or odor to edible aquatic life.

C. Monitoring Requirements

NPDES regulations at 40 CFR 122.48 require that all permits specify requirements for recording and reporting monitoring results. The Part III of the Permit establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements for this facility.

1. **Influent Monitoring Requirements**

   For POTWs: To calculate percent removal values, influent monitoring is required for BOD_5 and TSS in accordance with 40 CFR 133.102. Influent monitoring must be conducted before any treatment, other than de-gritting, and before any addition of any internal waste stream.

2. **Effluent Monitoring Requirements**

   Effluent monitoring frequency and sample type have been established in accordance with the requirements of 40 CFR 122.44(i) and recommendations in EPA's TSD. Consistent with 40 CFR Part 136 monitoring data for toxic metals must be expressed as total recoverable metal.

D. Compliance with Federal Anti-Backsliding Requirements and Puerto Rico's Anti-Degradation Policy

Federal regulations at 40 CFR 131.12 require that state water quality standards include an anti-degradation policy consistent with the federal policy. The discharge is consistent with the anti-degradation provision of 40 CFR 131.12, 72 Federal Register 238 (December 12, 2007, pages 70517-70526) and EQB's *Anti-Degradation Policy Implementation Procedure* in Attachment A of PRWQS. In addition, CWA sections 402(o)(2) and 303(d)(4) and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. Further, the Region 2 Anti-backsliding Policy provides guidance regarding relaxation of effluent limitations based on water quality for Puerto Rico NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit with some exceptions where limitations may be relaxed. The effluent limitations in the permit are at least as stringent as the effluent limitations in the existing permit, with the exception of effluent limitations for copper. One of the effluent limitations for this pollutant is less stringent that that in the existing permit. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of CWA section 401(o), 40 CFR 122.44(l), EPA Region 2's Anti-backsliding Policy dated August 10, 1993, and Puerto Rico's Anti-Degradation Policy Implementation Procedure established in PRWQS. EPA conducted an Existing Effluent Quality Analysis and found that the facility has not been meeting its existing limit and that a limit of 9.5 ug/l is consistent with the PRWQS.

PART III. RATIONALE FOR STANDARD AND SPECIAL CONDITIONS

A. Standard Conditions

In accordance with 40 CFR 122.41, standard conditions that apply to all NPDES permits have been incorporated by reference in Part IV.A.1 of the permit and expressly in Attachment B of the permit. The Permittee must comply with all standard conditions and with those additional conditions that are applicable to specified categories of permits under 40 CFR 122.42 and specified in Part IV.A.2 of the Permit.

B. Special Conditions

In accordance with 40 CFR 122.42 and other regulations cited below, special conditions have been incorporated into the permit. This section addresses the justification for special studies, additional monitoring requirements, Best Management Practices, Compliance Schedules, and/or special provisions for POTWs as needed. The special conditions for this facility are as follows:

1. **Special Conditions from the Water Quality Certificate**

   In accordance with 40 CFR 124.55, EPA has established Special Conditions from the WQC in the permit that EQB determined were necessary to meet PRWQS. The Special Conditions established in this section are only those conditions from the WQC that have not been established in other parts of the permit.

2. **Best Management Practices (BMP) Plan**

   The Permittee is not required to develop a BMP Plan in the permit on the basis of 40 CFR 122.2 and 122.44(k).

3. **Compliance Schedules**

   A compliance schedule has not been authorized for any pollutant or parameter in the permit on the basis of 40 CFR 122.47.

PART IV. COMPLIANCE WITH APPLICABLE PROVISIONS OF OTHER FEDERAL LAWS OR EXECUTIVE ORDERS

A. Coastal Zone Management Act

Under 40 CFR 122.49(d), and in accordance with the Coastal Zone Management Act of 1972, as amended, 16 *United States Code* (U.S.C.) 1451 *et seq*. section 307(c) of the act and its implementing regulations (15 CFR Part 930), EPA may not issue an NPDES permit that affects land or water use in the coastal zone until the Permittee certifies that the proposed activity complies with the Coastal Zone Management Program in Puerto Rico, and that the discharge is certified by the Commonwealth of Puerto Rico to be consistent with the Commonwealth's Coastal Zone Management Program. The Permittee has indicated the outfall is not in a coastal area managed by the Commonwealth's Coastal Zone Management Program and, although nearby, EPA has determined it will not affect the coastal area. Therefore, the requirements of 40 CFR 122.49(d) do not apply to this discharge.

B. Endangered Species Act

Under 40 CFR 122.49(c), EPA is required pursuant to section 7 of the Endangered Species Act (ESA), 16 U.S.C. 1531 *et seq*. and its implementing regulations (50 CFR Part 402) to ensure, in consultation with the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) that the discharge authorized by the permit is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat. No federally listed endangered or threatened species, or critical habitat, are in the vicinity of the discharge. Therefore, EPA has determined that the discharge is not likely to affect species or habitat listed under the ESA.

C. Environmental Justice

EPA has performed an Environmental Justice (EJ) Analysis for the discharge in accordance with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations*, and EPA's Plan EJ 2014. EJ is the right to a safe, healthy, productive and sustainable environment for all, where "environment" is considered in its totality to include the ecological, physical, social, political, aesthetic and economic environments. The NPDES permitting provides opportunities to address EJ concerns through appropriate avenues for public participation, seeking out and facilitating involvement of those potentially affected, and, when relevant, including public notices in more than one language where appropriate. EPA did not conduct EJ screening as this permit is not a Regional priority permit action.

D. Climate Change

EPA has considered climate change when developing the conditions of the permit. This is in accordance with the draft *National Water Program 2012 Strategy: Response to Climate Change* that identifies ways to address climate change impacts by NPDES permitting authorities (77 *Federal Register* 63, April 2, 2012, 19661-19662). Climate change is expected to affect surface waters in several ways, affecting both human health and ecological endpoints. As outlined in the draft National Water Program 2012 Strategy, EPA is committed to protecting surface water, drinking water, and ground water quality, and diminishing the risks of climate change to human health and the environment, through a variety of adaptation and mitigation strategies. These strategies include encouraging communities and NPDES permitting authorities to incorporate climate change strategies into their water quality

planning, encouraging green infrastructure and recommending that water quality authorities consider climate change impacts when developing water load and load allocations for new TMDLs, identifying and protecting designated uses at risk from climate change impacts. The 2010 *NPDES Permit Writers' Manual* also identifies climate change considerations for establishing low-flow conditions that account for possible climatic changes to stream flow. The conditions established in the permit are consistent with the draft National Water Program 2012 Strategy**.**

E. National Historic Preservation Act

Under 40 CFR 122.49(b), EPA is required to assess the impact of the discharge authorized by the permit on any properties listed or eligible for listing in the National Register of Historic Places (NRHP) and mitigate any adverse effects when necessary in accordance with the National Historic Preservation Act, 16 U.S.C. 470 et seq. EPA's analysis indicates that no soil disturbing or construction-related activities are being authorized by approval of this permit; accordingly, adverse effects to resources on or eligible for inclusion in the NHRP are not anticipated as part of this permitted action.

F. Magnuson-Stevens Fishery Conservation and Management Act

Under 40 CFR 122.49, EPA is required to ensure that the discharge authorized by the permit will not adversely affect Essential Fish Habitat (EFH) as specified in section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), 16 U.S.C. 1801 *et seq*. The Emajagua River does not contain EFH**.**

G. Clean Water Act, Section 403 Ocean Discharge.

CWA Section 403 requires EPA to consider guidelines for determining potential degradation of the marine environment when issuing NPDES permits. These Ocean Discharge Criteria (40 CFR 125, Subpart M) are intended to "prevent unreasonable degradation of the marine environment and to authorize imposition of effluent limitations, including a prohibition on discharge, if necessary, to ensure this goal". Based on the available information, EPA has determined that the discharge will not cause unreasonable degradation of the marine environment. A reopener provision has been included in the permit Part IV.B.5 that provides EPA the right to modify or revoke the permit based on any new data.

PART V. PUBLIC PARTICIPATION

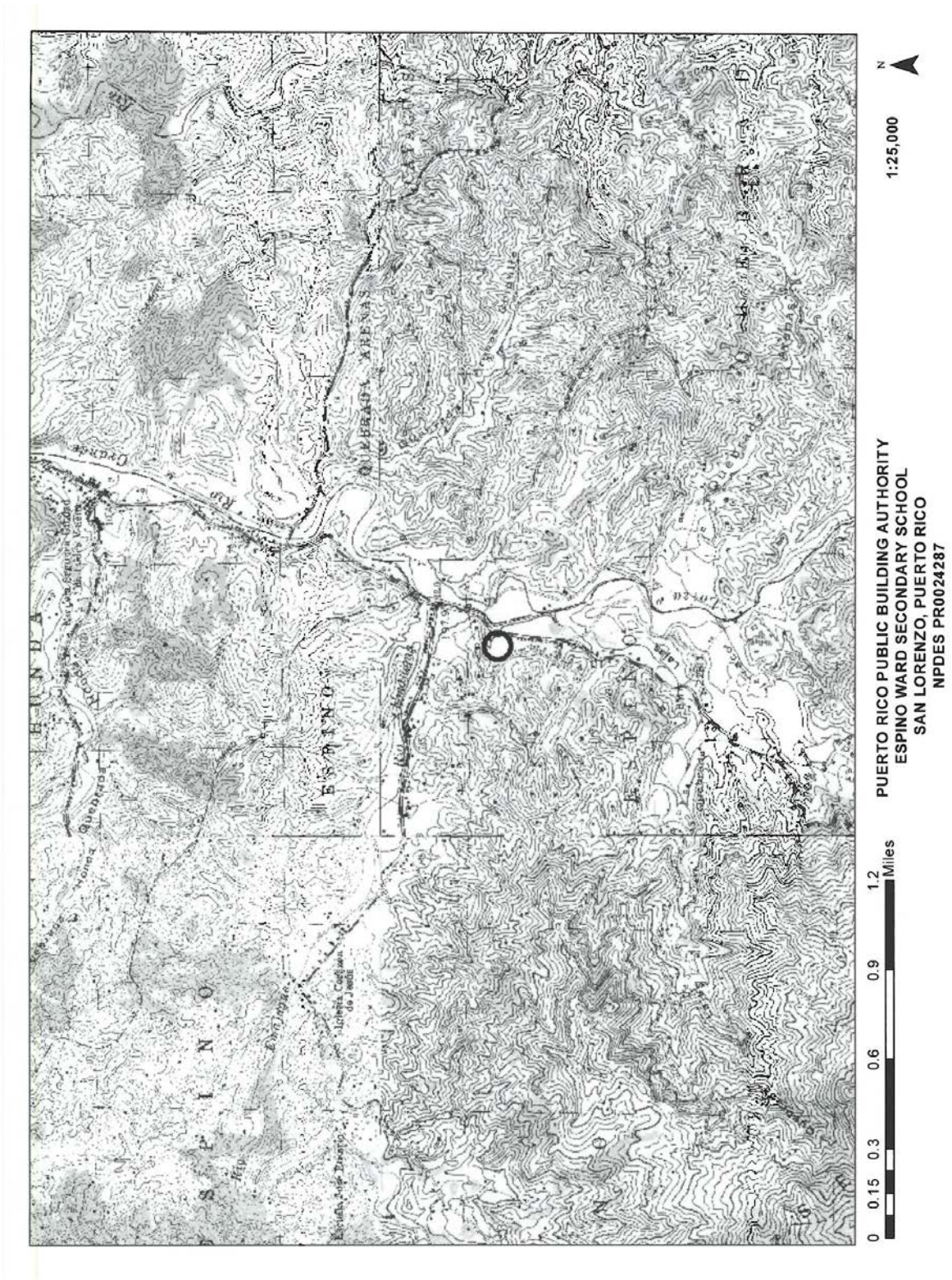
The procedures for reaching a final decision on the draft permit are set forth in 40 CFR Part 124 and are described in the public notice for the draft permit, which is published in ***Primera Hora.*** Included in the public notice are requirements for the submission of comments by a specified date, procedures for requesting a hearing and the nature of the hearing, and other procedures for participation in the final agency decision. EPA will consider and respond in writing to all significant comments received during the public comment period in reaching a final decision on the draft permit. Requests for information or questions regarding the draft permit should be directed to

Sergio Bosques
EPA Region 2, Caribbean Environmental Protection Division
Permit Writer Phone: 787-977-5838
Permit Writer Email: bosques.sergio@epa.gov

A copy of the draft permit is also available on EPA's website at www.epa.gov/region02/water/permits.html.

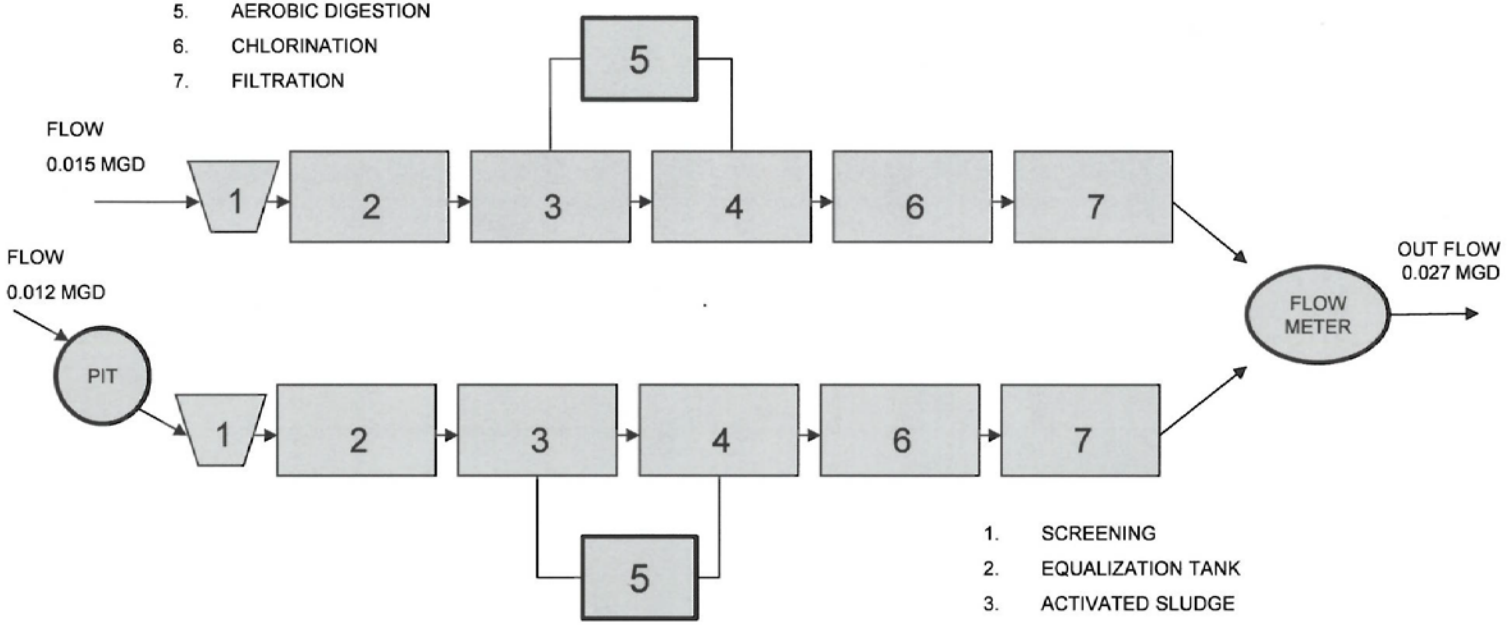
ATTACHMENT A — FACILITY MAP AND FLOW SCHEMATIC

The facility map and flow schematic are attached as provided by the discharger in the application.



ESPINO WARD SECONDARY SCHOOL
LINE DRAWING

1. SCREENING
2. EQUALIZATION TANK
3. ACTIVATED SLUDGE
4. SEDIMENTATION
5. AEROBIC DIGESTION
6. CHLORINATION
7. FILTRATION



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