



**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

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
Vega Baja WWTP
PERMIT No. PR0021679**

This Fact Sheet sets forth the principal facts and technical rationale that serve as the legal basis for the requirements of the accompanying permit. The permit has been prepared in accordance with Clean Water Act (CWA) Section 402, 33 U.S.C. § 1342, and its implementing regulations at Title 40 of the *Code of Federal Regulations* (CFR), Parts 122 through 124, and the Water Quality Certificate (WQC) issued by the Puerto Rico Department of Natural and Environmental Resources (DNER) pursuant to the requirements of CWA Section 401 33 U.S.C. § 1341..

Pursuant to 40 C.F.R. § 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 **June 17, 2024**, DNER 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 WQC into the permit. Any changes to the WQC will be incorporated into the final issuance of the 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 Aqueduct and Sewer Authority (PRASA) (referred to throughout as the Permittee) has applied for renewal on its **Vega Baja Wastewater Treatment Plant (WWTP)** National Pollutant Discharge Elimination System (NPDES) permit. The Permittee is discharging pursuant to NPDES Permit No. **PR0021679**. The Permittee submitted Application Form 1, and 2A dated **August 19, 2022**, and applied for an NPDES permit to discharge treated wastewater from Vega Baja WWTP, Vega Baja, called the facility. The facility is classified as a major discharger by EPA pursuant to major facility definition at 40 C.F.R. § 122.2.

The Permittee owns and operates the Vega Baja WWTP treatment plant which provides secondary treatment. 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 the following:

The Vega Baja WWTP is a publicly owned treatment work (POTW) that treats sanitary wastewater through secondary treatment of the domestic sewage from the Municipality of Vega Baja. It has a capacity of 4.2 MGD (design flow rate) and provides secondary treatment and discharge its effluent to the **Caño Cabo Caribe**. It was designed to remove 85% of BOD₅ and TSS.

Sanitary wastewater is processed through the following units, see Attachment A (Schematic Flow Diagram for more details:

- Influent Pump Station and Mechanical Bar Screens
- Degritter System
- Receiving tank for septic discharges
- Package Plant (Activated Sludge Aeration Tank, Clarifier, Chlorine Contact Tank and Aerobic Digester)

- Anoxic/Aerobic Reactor Train
- Container Reactor Train
- Chlorine Contact Chambers
- Ultraviolet Disinfection (UV Lamps)
- Tertiary Filters
- Sludge Drying Beds
- Digester

Sludge is thickened, dewatered and disposed in a landfill.

Summary of Permittee and Facility Information

Permittee	Puerto Rico Aqueduct and Sewer Authority (PRASA)
Facility contact, title, phone	Mrs. Marichu Valentín Vázquez, Executive Director Environmental Compliance, Health and Safety (787) 620-2277, ext. 2893 and 2427
Permittee (mailing) address	Puerto Rico Aqueduct and Sewer Authority P.O. Box 7066 Barrio Obrero Station Santurce, Puerto Rico 00916-7066
Facility (location) address	PR 686, Km 14.7, Cabo Caribe Ward, Los Naranjos Sector Vega Baja, P.R. 00693
Type of facility	Publically-owned Treatment Works
Pretreatment program	Yes
Facility daily average flow	3.17 MGD (in million gallons per day) (2022)
Facility design flow	4.2 MGD (in million gallons per day)
Facility classification	Major

B. Discharge Points and Receiving Water Information

Wastewater is discharged from Outfall 001 to the **Caño Cabo Caribe**, a water of the United States.

The permit authorizes the discharge from the following discharge point(s):

Outfall	Effluent description	Outfall latitude	Outfall longitude	Receiving water name and classification
001	Secondary treated municipal wastewater.	18°, 28', 13" N	66°, 23', 50" W	Caño Cabo Caribe, Class SD waters

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

- Use as a raw source of public water supply; and
- Propagation and preservation of desirable species, including threatened and endangered species.

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 Total maximum daily loads 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. Compliance Orders/Consent Decrees

The Permittee has a Consent Decree with the Agency (Civil Action No 3:15-cv-02283(JAG)) in which the facility is included. This consent decree does not 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:

- Clean Water Act Section 401 certification requirements;
- NPDES regulations (40 C.F.R. § Part 122); and
- PRWQS (August 8, 2022).

PART II. RATIONALE FOR EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

CWA Section 301(b) and 40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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. WQBEL are based on WQC.

1. **Flow:** An effluent limitation for flow has been established in the permit for 4.2 MGD as a Daily Maximum. Monitoring conditions are applied pursuant to 40 C.F.R. § 122.21(j)(4)(ii) and DNER's WQC. The frequency monitoring for flow shall be continuous with a flow meter.
2. **5-Day Biochemical Oxygen Demand (BOD₅):** The effluent concentration and percent removal limitations are based on technology-based secondary treatment standards for publicly owned treatment works (POTWs) specified in 40 C.F.R. § 133.102(a). The permit also requires influent monitoring and reporting in accordance with 40 C.F.R. § 122.44(i) to meet the requirement of the percent removal limitation (see section C.1.—Monitoring Requirements— of this Part).
3. **Total Suspended Solids (TSS):** The effluent concentration and percent removal limitations are based on technology-based secondary treatment standards for POTWs specified in 40 C.F.R. § 133.102(b). The permit also requires influent monitoring and reporting in accordance with 40 C.F.R. § 122.44(i) to meet the requirement of the percent removal limitation (see section C.1.—Monitoring Requirements— of this Fact Sheet).
4. **pH:** The effluent limitation for pH based on technology-based secondary treatment standards for POTWs specified in 40 C.F.R. § 133.102(c) is 6.0-9.0 SU. The effluent limitation for pH based on the water quality standard for Class SD waters as specified in Rule 1303.2 C.d of PRWQS and the WQC is 6.0-9.0 standard pH units (SU), except when it is altered by natural phenomena. The effluent limitations established in the permit are based on the PRWQS and the WQC as they are more stringent.
5. **Temperature:** The effluent limitation for temperature is based on the water quality criterion for all waters in Puerto Rico as specified in Rule 1303.1 D of PRWQS, and the WQC.
6. **Enterococci:** The effluent limitation is based on the water quality criterion for Class SD waters as specified in Rule 1303.2 C.c of PRWQS, and the WQC.

7. **Dissolved Oxygen (DO):** The effluent limitation is based on the water quality criterion for Class SD waters as specified in Rule 1303.2 C.a of PRWQS, and the WQC.
8. **Whole Effluent Toxicity (WET):** The permit establishes a requirement for the Permittee to conduct accelerated testing and develop a Toxicity Reduction Evaluation (TRE) Workplan as Special Conditions. These requirements are necessary to ensure that the Permittee has a process for addressing effluent toxicity if toxicity is observed.
9. **Color:** The effluent limitation is based on the water quality criterion for **Class SD** waters as specified in Rule 1303.2 C.e of PRWQS, and the WQC.
10. **Copper, Chromium, Cyanide, Mercury, Residual Chlorine, and Sulfide (undissociated H₂S):** The effluent limitations is based on water quality criteria established in PRWQS Rule 1303.1.J.1 of PRWQS and the WQC.
11. **Turbidity:** The effluent limitation is based on the water quality criterion for **Class SD** waters as specified in Rule 1303.2 C.f of PRWQS, and the WQC.
12. **Taste or Odor Producing Substances:** The effluent limitation is based on the water quality criterion for **Class SD** waters as specified in Rule 1303.2.C.h of PRWQS, and the WQC.
13. **Total Ammonia Nitrogen:** The effluent limitation is based on the water quality criterion for Class SD waters as specified in Rule 1303.2 C.i of PRWQS, and the WQC.
14. **Total Nitrogen:** The effluent limitation is based on the water quality criterion for Class SD waters as specified in Rule 1303.2 C.m of PRWQS, and the WQC.
15. **Oil and Grease:** The effluent limitation is based on the water quality standards as specified in Rule 1303.1.H of PRWQS, and the WQC.
16. **Total Phosphorous:** The effluent limitation is based on the water quality criterion for Class SD waters as specified in Rule 1303.2 C.n of PRWQS, and the WQC.
17. **Total Dissolved Solids:** The effluent limitation is based on the water quality criterion for Class SD waters as specified in Rule 1303.2 C.g of PRWQS, and the WQC.
18. **Suspended, Colloidal or Settleable Solids:** The effluent limitation is based on the water quality standards as specified in Rule 1303.1.E of PRWQS, and the WQC.
19. **Solids and Other Matter:** The effluent limitation is based on the water quality standards as specified in Rule 1303.1.A of PRWQS, and the WQC.
20. **Surfactants as Methylene Blue Active Substances (MBAS).** The effluent limitation of 100 ug/L is based on the water quality standard for Class SD waters as specified in Rule 1303.2 C.i and the WQC.

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
BOD ₅	mg/l	Monthly average	186 <i>(maximum daily)</i>	5 mg/l	--	5 mg/l	TBEL
		Weekly average		45 mg/l		45.0 mg/L	
	kg/day	Monthly average	749 kg/day	79 kg/day	--	477 kg/day	TBEL
		Weekly average		716 kg/day		716 kg/day	

Parameter	Units	Effluent limitations					
		Averaging period	Highest Reported Value (1)	Existing limits	Interim limits	Final limits	Basis
	Minimum % removal	Average monthly	9% <i>(lowest reported value)</i>	85%	--	85%	TBEL
Chromium VI (Cr+6)	ug/L	--	--	Monitor	Grab	φ	
Color	Pt-Co	Average monthly	15	15	--	15	WQBEL
Copper (Cu)	ug/l	Daily maximum	16.0	14	--	13.0	WQBEL
Cyanide Total (CN)	ug/l	Daily maximum	3.5	5.2	--	Monitor	WQBEL
Dissolved oxygen (DO)	mg/l	Monthly average	5.0 <i>(lowest reported value)</i>	Shall not contain less than 5.0	--	Shall not contain less than 5.0	WQBEL
Enterococci	colonies/100ml	Monthly average	733	Geometric mean of series of 5 samples shall not exceed 35	--	Shall not exceed 35 colonies/100 ml in any 90-day interval	WQBEL
	colonies/100ml	Sample maximum	5,660	No sample shall exceed upper confidence limit of 75% or a maximum of 130	--	90 th percentile of the samples taken shall not exceed 130 colonies/100 ml in the same 90-day interval	WQBEL
Flow	MGD	Daily maximum	5.66	4.2	--	4.2	TBEL
	m ³ /day	Daily maximum	15,898.73	--	--	--	TBEL
Mercury (Hg)	ug/l	Daily maximum	0.099	0.050	--	0.050	WQBEL
Nitrogen, Total (NO ₃ , NO ₂ , NH ₃)	ug/l	Daily maximum	15,080	1,700	--	1,700	WQBEL
Total Ammonia Nitrogen (TAN)	ug/l	Daily maximum	21,000	Monitor		0.3548 mg/l	WQBEL
pH	SU	Monthly average	6.79 – 7.67	Shall always lie between 6.0-9.0	--	Shall always lie between 6.0-9.0	WQBEL
Oil and Grease	mg/L	Monthly average	3.9	Shall be substantially free	--	Shall be substantially free	WQBEL
Residual Chlorine, Total	ug/l	Daily maximum	670	11	--	11	WQBEL
Sulfide (Undissociated H ₂ S)	ug/l	Daily maximum	0.1	2	--	2.0	WQBEL
Surfactants (as MBAS)	ug/l	Daily maximum	46	100	--	100	WQBEL
Suspended, Colloidal and Settleable Solids	mL	Daily maximum	40	Monitor		Monitor	WQBEL

Parameter	Units	Effluent limitations					
		Averaging period	Highest Reported Value (1)	Existing limits	Interim limits	Final limits	Basis
Temperature	°C	Daily maximum	31.7	32.2	--	Shall not exceed 30	WQBEL
Total Dissolved Solids	mg/l	Monthly average	570	500	--	500	WQBEL
Total Phosphorous	ug/l	Monthly average	1,340	160	--	160	WQBEL
Total Suspended Solids	mg/l	Monthly average	200	30	--	30.0 mg/l	TBEL
		Weekly average	(daily maximum)	45		45.00 mg/L	
	kg/day	Monthly average	154	477	--	477 kg/day	TBEL
		Weekly average		716		715 kg/day	
	minimum % removal	Average monthly	85% (lowest reported value)	85%	--	85%	TBEL
Turbidity	NTU	Daily maximum	6.7	50	--	50	WQBEL
Whole Effluent Toxicity	TUa	%	100	Monitor	--	Monitor	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 DMRs dated July 1, 2022, through April 30, 2024.

2. Outfall 001 Narrative Limitations

- a. **Enterococci:** The enterococci density, in terms of geometric mean shall not exceed 35 colonies/100 mL in any 90-day interval; neither the 90th Percentile of the samples taken shall exceed 130 colonies/100 mL in the same 90-day interval.
- b. **Oil and Grease:** The waters of Puerto Rico shall be substantially free from floating non-petroleum oils and greases as well as petroleum derived oils and greases.
- c. **Solids and Other Matter:** The waters of Puerto Rico shall not contain floating debris, scum or other floating materials attributable to the discharge in amounts sufficient to be unsightly or deleterious to the existing or designated uses of the water body.
- d. **Suspended, Colloidal or Settleable Solids:** Solids from wastewater sources shall not cause deposition in or be deleterious to the existing or designated uses of the water body.
- e. **Taste or Odor Producing Substances:** Shall not be present in amounts that will interfere with the use for potable water supply or will render any undesirable taste or odor to edible aquatic life.
- f. **Temperature:** Except by natural phenomena, no heat may be added to the waters of Puerto Rico, which would cause the temperature of any site to exceed 86°F (30°C).

C. Monitoring Requirements

NPDES regulations at 40 C.F.R. § 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

To calculate percent removal values, influent monitoring is required for BOD₅ and TSS in accordance with 40 C.F.R. § 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 C.F.R. § 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. Effluent monitoring and analyses shall be conducted in accordance with EPA test procedures approved under 40 CFR Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, as amended. For situations where there may be interference, refer to Solutions to Analytical Chemistry Problems with Clean Water Act Methods (EPA 821-R-07-002). 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.

The sampling point for Outfall 001 shall be located immediately after the primary flow measuring device of the effluent of the treatment system.

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

Federal regulations at 40 C.F.R. § 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 C.F.R. § 131.12, 72 Federal Register 238 (December 12, 2007, pages 70517-70526) and DNER'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 C.F.R. § 122.44(l) prohibit backsliding in NPDES permits. Further, the Region 2 Antbacksliding 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 limitation for **Cyanide**. The effluent limitation for this pollutant is less stringent than those in the existing permit. This relaxation of effluent limitation is consistent with the anti-backsliding requirements of CWA Section 401(o), 40 C.F.R. § 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. CWA Sec. 402(o)(2)(B)(i) allows backsliding if information is available which was not available at the time of permit issuance and would have justified a less stringent effluent limitation at the time of permit issuance. EPA has determined that it is appropriate to relax the effluent limitation for these parameters without violating anti-backsliding provisions of the CWA, in accordance with Section 402(o)(2), since one of the exceptions to the provisions has been satisfied; and Section 402(o)(3) since it complies with DNER's WQS which include antidegradation requirements. The DNER WQC constitutes a determination that the limit is sufficient to assure that the water quality standards are or will be attained.
- Existing effluent limitations for **Sulfates** has been removed based on CWA Section 402(o)(2)(B)(i). CWA Section 402(o)(2)(B)(i) authorizes the backsliding of effluent limitations if information is available which was not available at the time of permit issuance that would have justified the application of a less stringent effluent limitation at the time of permit issuance. Based on review of effluent data since issuance of the existing permit, the modified discharge does not show a reasonable potential for the exceedance of water quality criteria for these parameters.
- The water quality-based effluent limitation from the previous permit for **Copper, Temperature, and Total Ammonia Nitrogen** have been replaced with a more stringent water quality-based limitation in the WQC issued by the DNER. Pursuant to Section 401 (d) of the Act and 40 C.F.R. 122.44 (d) and 124.55, all State certified limitations and requirements contained in a Section 401 certification must be incorporated into a NPDES permit issued by EPA. The water quality-based effluent limitations referenced in this paragraph have been included in the NPDES permit, based on DNER's WQC.
- The proposed NPDES permit contains water quality-based effluent limitations for **Chromium VI (Cr+6)** which was **not included** in the previous NPDES permit. Pursuant to Section 401 (d) of the Act and 40 C.F.R. 122.44 (d) and 124.55, all State certified limitations and requirements contained in a Section 401 certification must be incorporated into a NPDES permit issued by EPA. The water quality-based limitations referenced in this

paragraph have been included in the NPDES permit, based on DNER's WQC.

PART III. RATIONALE FOR STANDARD AND SPECIAL CONDITIONS

A. Standard Conditions

In accordance with 40 C.F.R. § 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 C.F.R. § 122.42 and specified in Part IV.A.2 of the permit.

B. Special Conditions

In accordance with 40 C.F.R. § 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 C.F.R. § 124.55, EPA has established Special Conditions from the WQC in the permit that DNER determined were necessary to meet PRWQS. The Special Conditions established in this section are:

- a.** The flow of discharge 001 shall not exceed the limitation of 15,899.92 m³/day (4.2 MGD) as daily maximum. No increase in flow of discharge 001 shall be authorized without a recertification from the Department of Natural and Environmental Resources (DNER).
- b.** The permittee shall provide written notice to the DNER's Water Quality Area and the Environmental Protection Agency (EPA) Region 2 Clean Water Division of the following changes that may affect the treatment system:
 - 1.** Any new introduction of pollutants to the treatment system, not exclusively sanitary, coming from an industrial facility. If the industrial facility is an existing significant industrial user, shall notify only when the new introduction of pollutants, exceeds 1,000 gallons/day.
 - 2.** Any significant change in volume or character of pollutants being introduced into the treatment system by an existing source at the time of entering in effect the NPDES permit, that may cause a variation in the quality of the effluent to be discharged.
- c.** No changes in the design or capacity of the treatment system will be permitted without the previous authorization of the DNER.
- d.** Prior to the construction of any additional treatment system or the modification of the existing one, the permittee shall obtain the approval from the DNER of the engineering report, plans and specifications.
- e.** The permittee shall install, maintain and operate all water pollution control equipment in such a manner as to be in compliance with the Applicable Rules and Regulations.
- f.** 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.
- g.** 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.
- h.** The discharge 001 shall not cause the presence of oil sheen in the receiving water body.

- i.** All sample collection, preservation, and analysis shall be carried out in accordance with 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.
- j.** The permittee shall use the analytical method approved by the Environmental Protection Agency (EPA), with the lowest possible detection limit, in accordance with the 40 CFR, Part 136 for Sulfide (as S). Also, the permittee shall complete the calculations specified in Method 4500-S-2 F, Calculation of Un-ionized Hydrogen Sulfide, of Standards Methods 18th Edition, 1992, to determine the concentration of undissociated H₂S. If the sample results of Dissolved Sulfide are below the detection limit of the EPA approved method established in the 40 CFR, Part 136, then, the concentration of undissociated H₂S shall be reported as "below detection limit".
- k.** The samples taken for the analysis of total cyanide and mercury shall be analyzed using the analytic method approved by the EPA with the lowest possible detection level, in accordance with Rule 1306.8 of the Puerto Rico Water Quality Standards Regulation (PRWQSR), as amended.
- l.** The flow-measuring device for discharge 001, shall be periodically calibrated and properly maintained. Calibration and maintenance records must be kept in compliance with the Applicable Rules and Regulations.
- m.** The sampling point for discharge 001 shall be located immediately after the primary flow-measuring device of the effluent.
- n.** The sampling point for discharge 001 shall be labeled with an 18 inches per 12 inches (minimum dimensions) sign that reads as follows:

"Punto de Muestreo para la Descarga 001"
- o.** All water or wastewater treatment facilities, whether publicly or privately owned, must be operated by a person licensed by the Examination Board of Water and Wastewater Treatment Plants Operators of Puerto Rico.

The permittee shall conduct one (1) acute toxicity test, during the permit effectiveness period, of its wastewaters discharge through Outfall Serial Number 001, in accordance with the following:

- 1.** The test species should be the Fathead Minnow (*Pimephales promelas*) and Cladocera (*Daphnia magna*). The test should be static renewal type.
- 2.** The toxicity test shall be conducted in accordance with the EPA publication, EPA-821-R-02-012 Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Edition), October 2002, or the most recent edition of this publication, if such edition is available.
- 3.** The test shall provide a measure of the acute toxicity as determined by the wastewater concentration, which causes 50 percent mortality of the test organisms over a 48-hour period. The test results shall be expressed in terms of Lethal Concentration (LC) and reported as 48-hour, LC50.
- 4.** A procedure report shall be submitted within ninety (90) days after the Effective Date of the NPDES permit. The following information shall be included in the procedure report:
 - a)** An identification of the organizations responsible for conducting the test and the species to be tested.
 - b)** A detailed description of the methodology to be utilized in the conduct of the test, including equipment, sample collection, dilution water and source of test organisms.

- c) A schematic diagram, which depicts the effluent sampling location in relation to the wastewater treatment facility and the discharge monitoring point.
 - d) If stream flow monitoring is required, the method used to obtain the stream flow data in estimating the seven-day two-year low flow (7Q2).
5. The results of the test conducted shall be submitted to the Municipal Water Programs Branch of EPA's Region 2 Caribbean Environmental Protection Division and the DNER's Water Quality Area, within sixty (60) days of completion of the test. Based on the review of the test results, the Regional Administrator of EPA or the DNER can require additional toxicity tests, including chronic tests and toxicity/treatability studies, and may impose toxicity limitations.
- p. The solid waste such as sludge, screenings, and grit, generated due to the operation of the Vega Baja Wastewater Treatment Plant shall be:
- 1. Disposed in compliance with the applicable requirements established in the 40 CFR, Part 257. A semiannual report shall be submitted to the Water Quality Area and the Land Pollution Control Area of the DNER and to the Municipal Water Programs Branch of EPA's Region 2 Caribbean Environmental Protection Division, notifying the method or methods used to dispose the solid waste generated in the facility. Also, a copy of the approval or permit applicable to the disposal method used shall be submitted, if any.
 - 2. Transported adequately in such a way that access is not gained to any water body or soil. In the event of a spill of solid waste on land or into a water body, the permittee shall notify the Point Sources Permits Division of the DNER's Water Quality Area in writing within a term no longer than twenty-four (24) hours after the spill to the following electronic address: bypass@drna.pr.gov.

This notification shall include the following information:

- I. spilled material,
- II. spilled volume,
- III. measures taken to prevent the spilled material to gain access to any water body.

This special condition does not relieve the permittee from its responsibility to obtain the corresponding permits from the DNER's Land Pollution Control Area and other state and federal agencies, if any.

- q. A logbook must be kept for the material removed from the Vega Baja Wastewater Treatment Plant, such as sludge, screenings and grit, detailing the following items:
- 1. removed material, date and source of it;
 - 2. approximate volume and weight;
 - 3. method by which it is removed and transported;
 - 4. final disposal and location;
 - 5. person that performs the service.

A copy of the Non-Hazardous Solid Waste Collection or Transportation Services Permit issued by the authorized official from the DNER must be attached to the logbook.

- r. The sludge produced within the facility due to the operation of the treatment system shall be analyzed and all constituents shall be identified as required by "Standards for the Use or Disposal of Sewage Sludge" (40 CFR, Part 503). The sludge shall be disposed properly in such manner that water pollution or other adverse effects to surface waters or to ground waters do not occur.
- s. If any standard or prohibition to the sanitary sludge disposal is promulgated and said prohibition or standard is more stringent than any condition, restriction, prohibition, or standard contained in the NPDES permit, such permit shall be modified accordingly or revoked and reissued to be adjusted with regard to such prohibition or standard.

2. Whole Effluent Toxicity Testing

EPA has imposed the quarterly testing requirement to collect data necessary to determine whether this discharge has the reasonable potential to cause or contribute to an exceedance of Puerto Rico's water quality standards for toxicity, pursuant to water quality based permitting requirements at 40 C.F.R. § 122.44(d)(1), which requires EPA and delegated states to evaluate each National Pollutant Discharge Elimination System (NPDES) permit for the potential to exceed state numeric or narrative water quality standards, including those for toxics, and to establish effluent limitations for those facilities with the "reasonable potential" to exceed those standards. These federal regulations require both chemical specific limits, based on the state numeric water quality standards or other criteria developed by EPA, and whole effluent toxicity effluent limits.

3. Best Management Practices (BMP) Plan

In accordance with 40 C.F.R. § 122.2 and 122.44(k), BMPs are schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution to waters of the United States. The Permittee is required to develop a BMP Plan in Part IV.B.3.a of the permit to control or abate the discharge of pollutants.

4. Compliance Schedules

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

5. Other Special Conditions

The permit establishes additional special conditions for biosolids management and pretreatment requirements.

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

A. Coastal Zone Management Act

Under 40 C.F.R. § 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 C.F.R. § 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. As this activity has been permitted in the past, a reopener clause has been established that allows the permit to be modified or revoked based on the consistency determination requested by the permittee as part of this renewal process.

B. Endangered Species Act

Under 40 C.F.R. § 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. On April 16, 2009, EPA designated PRASA (a non-Federal representative) to conduct informal consultations or prepare a biological assessment for Section 7 Consultations, according to 50 C.F.R. § 402.8. In the past, not federally listed endangered or threatened species, or critical habitat, are in the vicinity of the discharge. Therefore, it has been determined that the discharge is not likely to affect species or habitat listed under the ESA.

C. Coral Reef Protection

Under Executive Order 13089, *Coral Reef Protection*, EPA is required to ensure that discharge authorized under the permit will not degrade any coral reef ecosystem. No corals or coral ecosystems are in the vicinity of the discharge.

D. National Historic Preservation Act

Under 40 C.F.R. § 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.

E. Magnuson-Stevens Fishery Conservation and Management Act

Under 40 C.F.R. § 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.* As this activity has been permitted in the past, a reopener clause has been established that allows the permit to be modified or revoked based on the consistency determination. Therefore, a reopener clause has been established that allows the permit to be modified or revoked based on the findings of the Endangered Species Act consultation as it relates to the Magnuson-Stevens Fishery Conservation and Management Act.

F. 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 C.F.R. § 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 permit are set forth in 40 CFR Part 124 and are described in the public notice for the draft permit, which is published on EPA's website at <https://www.epa.gov/npdes-permits/puerto-rico-npdes-permits>. 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

Carlos R. Villafañe, DMin, MEM, PE
EPA Region 2, Caribbean Environmental Protection Division
Permit Writer Phone: 787-977-5858
Permit Writer Email: villafane.carlos@epa.gov

ATTACHMENT A — FLOW SCHEMATIC AND FACILITY MAP

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



