



GOVERNMENT OF PUERTO RICO

Department of Natural and Environmental Resources

2020 Puerto Rico 305(b)/303(d) Integrated Report

Plans and Special Projects Division
Water Quality Area

Revised on December 10, 2020



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EXECUTIVE SUMMARY

The Puerto Rico Department of Natural and Environmental Resources (PRDNER) as successor of Environmental Quality Board (EQB) after the enactment of the “Reorganizational Plan of the Department of Natural and Environmental Resources of 2018”, Act No. 171-2018, (PRDNER) is the local agency responsible for seeking the attainment of the designated uses established in the Puerto Rico Water Quality Standards Regulation (PRWQSR, as amended on April 11, 2019) for the various water resources and is also responsible for the oversight, maintenance and protection of the quality of these water resources. The designated uses established in the WQSR are:

- ❖ Primary Contact Recreation
- ❖ Secondary Contact Recreation
- ❖ Propagation and maintenance of desirable species, including threatened or endangered species (Aquatic Life)
- ❖ Raw Source of Public Water Supply

To comply with the requirements established in Section 305(b) of the Clean Water Act (CWA), PRDNER performs the required assessment in terms of the current water quality in the different water resources throughout Puerto Rico (PR). This assessment allows us to determine whether or not these resources comply with the applicable water quality standards and achieve the designated uses. For water bodies that do not meet the applicable standard for a designated use, the Act requires that the state develop control measures for pollutants. These water bodies will form 303(d) List. Control measures should address the problem that caused the non-compliance of the standard for the designated use. Each impairment reflected on the 303(d) List requires a calculation of the maximum amount of the impairing pollutant that a water body can receive and still meet water quality standards. This calculation is called the Total Maximum Daily Load (TMDL). TMDL’s include reduction of pollution sources impacting the water body which, when achieved, will result in the attainment of the water quality standard in the impaired water body.

In December 2013, the United States Environmental Protection Agency (USEPA) announced a new framework for implementing the CWA Section 303(d) Program – *A long-term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program*. This new vision, encourage states and territories to develop tailored strategies to implementation CWA 303(d) responsibilities of their overall water quality goals and individuals states priorities.

Consistent with the new EPA’s vision, PRDNER identify those assessment units (AU) for priority restoration and protection activities. This prioritization provides a framework to focus the location and timing for the development of, alternative restoration, protection plans and TMDLs. Those alternatives should include:

- Identification of specific impairment addressed by an alternate approach.

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- Planning, development and implement effectiveness monitoring programs.
- Revisions, and amendments to the existing regulations.

This report constitutes the PR 305(b)/303(d) Integrated Report (IR) for fiscal year 2020. For 2020 cycle there are total of three hundred fifty-eight (358) Assessment Units (AU), of these one hundred ninety-four (194) are river basins, sixty-two (62) are river estuaries, eighteen (18) are lakes, seventeen (17) lagoons, three (3) are San Juan Bay Estuary System (SJBES) and sixty-four (64) are coastal shoreline.

The information considered for the assessment for the water bodies is routine ambient water quality sampling data from various networks, water quality special monitoring projects and existing or secondary data requested to government agencies and non-government entities. This will provide physical, chemical and biological water quality data from the different water bodies. The PRDNER generates data from five (5) routine monitoring networks. These are: **Surface Water Monitoring Network, Clean Lakes Monitoring Network, Groundwater Monitoring Network, Coastal Monitoring Network and Beach Monitoring and Public Notification Program**. In this cycle thirty-one (31) surface water sites at thirty (30) AU were assess as part of water quality special monitoring projects: **In Situ Measurements of Physical Parameters in segment of water bodies included in the 303(d) List**. Supplementary information, such as: NPDES compliance evaluation inspections, operation and maintenance inspections and pump station by-passes, implementation of BMPs by non-point sources, fish-kills or spill events, make possible identified potential pollution sources.

To achieve the restoration and preservation of the designated water quality in our streams, lakes and coastal shorelines will require the coordinated effort of various government agencies, private enterprises and concerned citizen groups as well as outreach and educational programs, both in communities and through the public media. In addition, PRDNER is working with the implementation of the PR Non-Point Sources Management Program (PRNPSMP), the Clean Water Act 303(d) Long – Term Vision Program and the development of TMDL in the impaired basins.

PRNPSMP has set the goal to establish the strategies that will mark the progress to achieve and maintain water quality standards and water quality benefits; short term or long terms objectives that are activity-based measures (milestones) were established to accomplishing the program's goal. The milestones associated with each objective may include those of local agencies which are partners in the PRNPSMP. The main goal is to identify non-point sources of pollution of surface waters in order to prevent and reduce non-point source pollution, such that water quality standards are achieved.

Clean Water Act 303(d) Program Long – Term Vision identify those AU for priority restoration and protection activities. This prioritization provides a framework to focus the location and timing for the development of, alternative restoration, protection plans and TMDLs. Those alternatives should include identification of specific impairment addressed by an alternate approach,

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planning, development and implement effectiveness monitoring programs and revisions, and amendments to the existing regulations.

Rivers & Streams

The water quality assessment for the 2020 cycle indicates that 5,403.5 miles of rivers and stream were assessed. For this cycle, 3,256.3 miles of river and stream were assessed with water quality monitoring stations. From the evaluation of the water quality data obtained it was found that the impairment for primary and secondary recreation designated uses was due to Enterococcus exceeded the standard. For aquatic life and raw source for drinking water designated uses Chromium VI, Total Phosphorus, Turbidity and Total Nitrogen were the most common causes of impairment. A total of forty-eight (48) AU/parameter combination were removed from the 2020 303(d) List.

Lakes (reservoirs)

The water quality assessment for the 2020 cycle indicates that 7,323 acres were assessed. At the present time 7,269 acres of lakes have a permanent water quality monitoring stations. The primary and secondary recreation designated uses were evaluated as Category 4a, which means that have an approved TMDL for fecal coliform. For aquatic life designated use Dissolved Oxygen, pH, Temperature were the most common causes of impairment. For raw sources for drinking water designated use the most common cause of impairment were Total Phosphorus, Total Nitrogen and Turbidity. A total of two (2) AU/parameter combination were removed from the 2020 303(d) List.

Coastal Waters

The water quality assessment for the 2020 cycle indicates that 546.63 coastal miles of Puerto Rico were assessed. At the present time 472.52 coastal miles have permanent water quality monitoring stations. From the evaluation of the water quality data obtained it was found that the impairment for primary and secondary recreation designated uses was due to Enterococcus exceeded the applicable standard. For aquatic life designated use Turbidity, Copper and Temperature were the most common causes of impairment. A total of thirty-six (36) AU/parameter combination were removed from the 2020 303(d) List for meet the water quality standards.

Estuaries

The assessment of estuaries corresponds to lower reaches of the rivers near the coastal shoreline as defined in the PRWQSR. The SJBES is addressed separately, below.

Islandwide, there are a total of 5.3602 mi². The river estuaries do not have a permanent water quality monitoring station but 1.2378 mi² were included in prior cycles as part of the 303(d) List

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by a synoptic study or special monitoring project. The impairment for the designated uses was due to Surfactants, Dissolved Oxygen and Turbidity exceeded the standard.

San Juan Bay Estuary System

The SJBES is the only estuary identified as a separate basin due to its complex composition and interrelation of streams, lagoons, channels and closed bay. The five (5) basins included in the overall drainage area of the SJBES are Caño Martin Peña, Quebrada Juan Méndez, Quebrada San Antón, Río Piedras and Quebrada Blasina. The SJBES it consists of three (3) AU with twenty-five (25) monitoring stations of the San Juan Bay Estuary Program.

For SJBES the water quality assessment for the 2020 cycle indicates that the 3.8340 mi² and 18.8 SB Class miles were assessed. From the evaluation of the water quality data obtained it was found that the impairment for the primary and secondary recreation designated uses was due to Enterococcus and Fecal Coliform exceeded the standard. Among the most important causes of impairment for aquatic life designated uses were Dissolved Oxygen, Oil & Grease, Surfactants, Temperature, Total Nitrogen, Total Phosphorus and Turbidity. A total of four (4) AU/parameter combination were removed from the 2020 303(d) List.

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PART A. Background

Total Waters

Is the goal of the PRDNER to preserve, maintain and enhance the quality of the water of PR in order to protect the designated uses and threatened and endangered species, between others responsibilities.

PRDNER groups all the basins in four hydrographic regions, in which the different watersheds are included: to the north (9 watersheds), east (28 watersheds), south (33 watersheds), and west (26 watersheds) (Figure 1).



Figure 1: Watersheds in Puerto Rico

The reservoirs in PR, constructed in the main rivers basins in order to store water for domestic and industrial consumption, irrigation, production of electrical power and control of floods, also provide an additional benefit, recreation (Figure 2). The recreational activities performed in the reservoirs include direct contact (swimming) as indirect contact (recreational fishing and strolls in boat).

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Water Quality Area

The PRDNER Water Quality Area (WQA) prepares the Integrated Water Quality Monitoring and Assessment Report (Intregated Report) in order to comply with sections 303(d) and 305(b) of the Clean Water Act. The WQA is composed as follows (Figure 3).

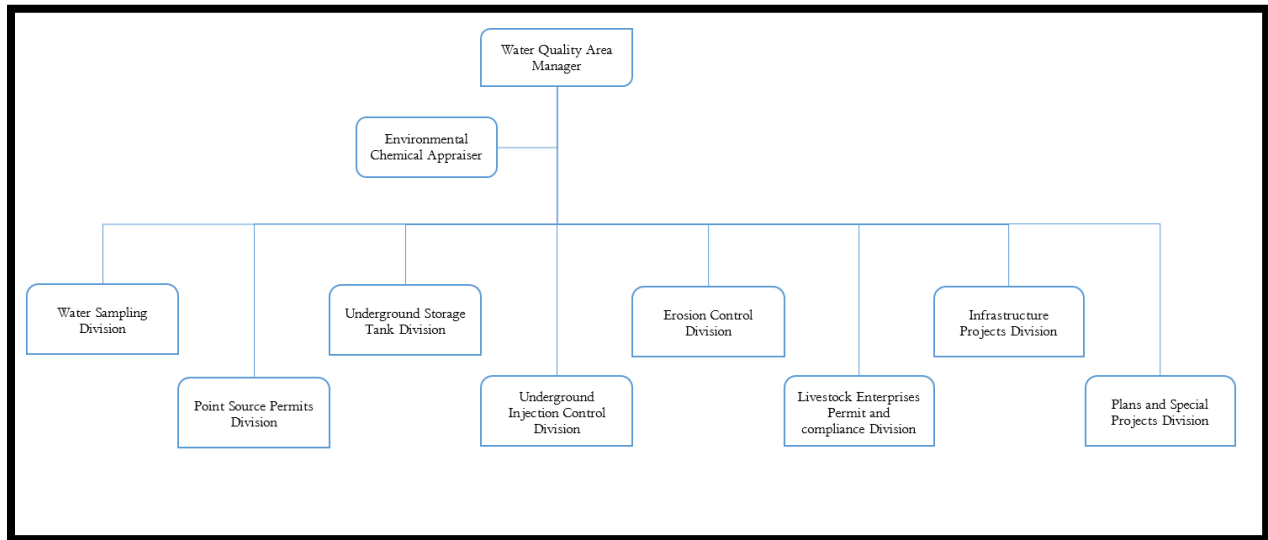


Figure 3: Water Quality Area Organization Chart

Following is an overview of the Water Quality Area Divisions.

Plans and Special Projects Division manages and evaluates the monitored water quality data to determine if the desirable water quality in the different hydric resources from the country is achieved. Plans and Special Projects Division develops the 305(b)/303(d) Integrated Report as required by Clean Water Act. It includes the water quality evaluation for river, stream, coastal, lakes, lagoons, estuary and groundwater of the island. Also, verifies the effectiveness of the management and control programs implemented and develops the strategies for the improvements of the water quality, as required by the CWA and the PRWQSR. Those strategies include; implementation of the TMDL for the impaired water bodies, the Wellhead Protection Program, Non Point Sources Management Program and PR Unified Watershed Assessment and Restoration Activities. Also consistent with the new EPA's vision, this Division will have the responsible for implementing the CWA Section 303(d) Program – *A long-term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program*. This new vision, encourage states and territories to develop tailored strategies to implementation CWA 303(d) responsibilities of their overall water quality goals and each states priorities. Other responsibility is the evaluation, preparation and coordination with the Quality Assurance Control Officer of the Water Quality Area and the Division of Environmental Science and Assessment of

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the USEPA Region II in all sampling and analytical activities that are subjected to a Water Quality Assurance Program Plan. The Beach Monitoring and Public Notification Program also is managing under this Division.

The **Underground Injection Control Division** was created to regulate/control the facilities with underground injection system (UIS) and responds to the wastewater releases or escapes from these systems that could be affecting the underground water resource. In order to control these types of systems, permits and authorizations are issued, sampling monitoring reports are evaluated, and remedial plans are required to those where the bad operation of the systems has caused spills to the water or to the subsoil. The USEPA thru a memorandum of understanding delegated the pursuit of UIS to PRDNER.

The **Point Source Permit Division** (PSPD) regulates wastewater treatment systems that do not have direct discharges to surface and coastal waters. The discharge of pollutants to surface and coastal waters are regulated by the National Discharge Elimination System (NPDES) under Section 402 of the CWA. This is a program administered by the USEPA. Section 401 of the Act, as amended requires USEPA that prior to issuing a discharge permit under NPDES a Water Quality Certificate must be obtained from state agency with jurisdiction over water pollution control. In PR, such responsibility is also, on PREQB specifically to the PSPD.

The **Underground Storage Tanks Division** (UST) was created to regulate/control the UST facilities and responds to of leaking tank that could be affecting the underground water resources. In order to control this type of systems, permits and authorization are issued, sampling monitoring report are evaluated, and remedial plans are required to those where the bad operations of the systems has cause spills to the water or to the subsoil. USEPA thru a memorandum of understanding delegated the pursuit of UST to PRDNER.

The **Erosion Control Division** implements and manages the Erosion Control and Sedimentation Prevention Regulation, which performs enforcement actions to the facilities regulated under the General Permit. The aforementioned division is responsible to perform inspections to all the permitted projects and presented to PRDNER in order to verify compliance with the permit granted and take corrective action or legal action if needed. The way to grant this permit was changed, in order to increase the oversight of the project and verify compliance with regulations.

The **Infrastructure Projects Division** has the responsibility of manage the federal funds assigned by USEPA through the State Revolving Fund program. Also, assess the planning, design and construction phases of each project in order to verify compliance with Title VI of the CWA.

The **Livestock Permit and Compliance Division** perform inspections, evaluate and approve the Animal Waste Management Plans that submit livestock enterprises such as: dairy facilities, poultry facilities, horse farms, among others. Through the approved Reglamento *para el Control de los Desperdicios Fecales de Animales en Confinamiento* (January 2009) this Division regulate the procedures, requirements and prohibitions with respect to the design, implementation,

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operation and maintenance of the Animal Waste Management Plan for each facility where animal in confinement stay.

The **Water Sampling Division** as part of their responsibilities has to perform the sampling of the surface, coastal, underground waters, lakes and sampling projects in some watersheds in PR.

The following Table 2 and Table 3 show a summary of Actions Initiated by Point and Non-Point Source Control Units.

Table 2: Actions Initiated Point Sources Control Units				
Acti ons	NPDES Facilities	UST	UIC	Non-Filer (Illegal Discharges)
Certificates or permits Issued	86	477	193	-
Permits of operation	0	463	84	-
Total number of inspections	229	839	158	411
Referrals to Legal Affairs	-	163	15	-
Notification of violation	-	832	375	141
Administrative Orders	-	43	16	-
Consent Orders	-	322	0	-

Table 3: Actions Initiated Non-Point Sources Control Units		
Actions	SEC Activities	Livestock Enterprises
Certificates or permits Issued	455	130
Total number of inspections	548	595
Referrals to Legal Affairs	2	3
Notification of violation	300	153
Administrative Orders	6	1

Cost/Benefit Assessment

Accurate costs associated with water quality improvements in PR are not readily available. This type of assessment would require diverse data on government and private expenditures concerning multiple aspects of direct environmental improvement efforts, including installation of treatment methods, changes and improvements in treatment levels, technologies and methods, installation and improvements of sewerage and storm water sewer systems, development and implementation costs of best management practices, as well as urban, rural and industrial development improvements. Other necessary information would include increased use and/or demand of the improved environmental resource as well as the monitoring and assessment efforts and activities performed to measure the improvements or lack of improvements achieved in a given basin or regional area.

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Although this information is not readily available, we do provide some of the costs involved in efforts pertaining to water quality improvement and protection. These costs are only those incurred directly by PRDNER utilizing state and federal funds to operate and manage water quality planning and control programs. Another cost, such as sanitary infrastructure improvements, governmental and private sector expenditures on waste and storm water management and control programs, recreational benefits (including tourism promotional activities and costs), governmental and private expenditures to promote natural resources protection, preservation and enjoyment are not being considered.

Table 4 thru 7 below provides the major costs incurred with federal and state funds to operate environmental protection and planning activities in the WQA of PRDNER.

Table 4: Federal and State Funds						
Categories	Performance Partnership Grant (PPG)				Beach Monitoring and Public Notification Program	
	2018		2019		2018	2019
	Federal	State	Federal	State	Federal	Federal
Salaries	1,200,407	269,959	1,572,136	330,716	161,702	149,737
Fringe Benefits	224,585	50,507	251,747	52,958	53,583	24,924
Travel	11,535	2,606	26,000	5,469	7,500	7,500
Equipment	141,973	31,928	86,751	18,249	-	40,400
Supplies	135,000	30,360	189,997	39,968	15,500	24,000
Contractual	782,420	175,958	424,037	89,201	-	-
Construction	-	-	-	-	-	-
Others	53,375	12,004	54,319	11,426	6,915	16,866

Table 5: Federal and State Funds (Cont.)						
Categories	Water Quality Management 604(B)		State Revolving Fund (SRF)			
	2018	2019	2018		2019	
	Federal	Federal	Federal	State	Federal	State
Salaries	118,914	57,903	-	-	295,294	59,059
Fringe Benefits	22,983	9,336	-	-	52,997	10,599
Travel	400	200	-	-	8,333	1,667
Equipment	-	-	-	-	1,346	269
Supplies	5,500	4,300	-	-	676	135
Contractual	20,492	116,600	-	-	356,292	71,258
Construction	-	-	-	-	-	-
Others	-	422	20,935,000	2,497,400	19,905,873	3,981,175

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Table 6: Federal and State Funds (Cont.)										
Categories	LUST - Corrective				UST - Preventive				UST- Hurricane Relief	
	2018		2019		2018		2019		2019	
	Federal	State	Federal	State	Federal	State	Federal	State	Federal	State
Salaries	240,612	26,735	248,231	27,582	182,005	60,668	193,104	64,368	57,035	5,897
Fringe Benefits	80,861	8,985	40,160	4,462	59,629	19,876	31,765	10,589	8,543	949
Travel	462	51	5,600	622	5,600	1,867	5,600	1,867	500	56
Equipment	917	102	31,500	3,500	1,770	590	52,500	17,500	12,600	1,400
Supplies	630	70	10,000	1,112	1,073	358	7,500	2,500	2,000	222
Contractual	16,667	1,852	100,000	11,111	-	-	-	-	602,347	66,927
Construction	-	-	-	-	-	-	-	-	-	-
Others	217	24	5,400	601	3,500	1,167	13,000	4,334	2,440	271

Table 7: Total Federal and State Funds	
Summary of Federal and State Funds	
Federal	49,599,538
State	8,091,086
Total	57,690,624

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Special State Concerns and Recommendations

[RESERVED]

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PART B. Assessment Methodology Used for 305(b)/303(d) Integrated Report for 2020 Cycle
and Assessment Results

Assessment Units (AU)

Assessment Unit for Inland Waters

This report constitutes the PR 305(b)/303(d) Integrated Report (IR) for fiscal year 2020. For 2020 cycle there are total of three hundred fifty-eight (358) AU, of these one hundred ninety-four (194) are river basins, sixty-two (62) are river estuaries, eighteen (18) are lakes, seventeen (17) lagoons, three (3) are San Juan Bay Estuary System and sixty-four (64) are coastal shoreline.

Each AU generally consists of one of the following:

- A section of the main basin, with the corresponding minor first order tributaries.
- Sub-basin represented by major first order tributary (a river or stream that flows directly into main basin), second order tributary (a river or stream that flows into a first order tributary, and in some cases, third order tributary (a river or stream that flows into a second order tributary).
- In cases where either the main basin or any major tributary includes a lake (reservoir), the lake constitutes another AU. The AU includes the lake (from the dam up to the highest reach that defines the lake) and all the immediate minor tributaries that discharge directly to the lake.

The Table 8 provides basic information pertaining to the 96 basins (194 AU) that compose the current inland waters segmentation system.

Table 8: Basins for the Inland Waters Segmentation System				
Basin Name	Basin ID	Basin Size (miles)	Region	Sub-Basins
QUEBRADA DE LOS CEDROS	PRNQ1A	12.0	N	1
QUEBRADA DEL TORO	PRNQ2A	1.0	N	1
RÍO GUAJATACA*	PRNR3A	38.0	N	4
QUEBRADA BELLACA	PRNQ4A	1.7	N	1
RÍO CAMUY	PRNR5A	48.6	N	1
QUEBRADA SECA	PRNQ6A	2.0	N	1
RÍO GRANDE DE ARECIBO*	PRNR7A	424.6	N	12
RÍO GRANDE DE MANATÍ*	PRNR8A	234.6	N	11
RÍO CIBUCO*	PRNR9A	144.6	N	6
RÍO DE LA PLATA*	PRER10A	470.1	E	18
RÍO HONDO	PRER11A	22.0	E	1
RÍO BAYAMÓN*	PRER12A	185.0	E	5
SAN JUAN BAY ESTUARY SYSTEM*	PREE13A	**	E	3
RÍO GRANDE DE LOIZA*	PRER14A	554.3	E	15
RÍO HERRERA	PRER15A	17.0	E	1
RÍO ESPÍRITU SANTO*	PRER16A	58.4	E	2
RÍO MAMEYES	PRER17A	38.9	E	2

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Table 8: Basins for the Inland Waters Segmentation System

Basin Name	Basin ID	Basin Size (miles)	Region	Sub-Basins
QUEBRADA MATA DE PLÁTANO	PREQ18A	4.0	E	1
RÍO SABANA	PRER19A	33.1	E	2
RÍO JUAN MARTÍN	PRER20A	7.8	E	1
QUEBRADA FAJARDO*	PREQ21A	10.0	E	1
RÍO FAJARDO	PRER22A	59.0	E	1
RÍO DEMAJAGUA	PRER23A	2.8	E	1
QUEBRADA CEIBA	PREQ24A	5.0	E	1
QUEBRADA AGUAS CLARAS	PREQ25A	4.8	E	1
RÍO DAGUAO	PRER26A	13.8	E	1
QUEBRADA PALMA	PREQ27A	11.8	E	1
QUEBRADA BOTIJAS	PREQ28A	7.4	E	1
RÍO SANTIAGO	PRER29A	15.3	E	2
RÍO BLANCO	PRER30A	58.4	E	2
RÍO ANTÓN RUIZ	PRER31A	20.4	E	2
QUEBRADA FRONTERA	PREQ32A	8.5	E	1
RÍO HUMACAO*	PRER33A	55.8	E	1
RÍO CANDELERO	PRER34A	10.4	E	1
RÍO GUAYANÉS*	PRER35A	94.6	E	2
QUEBRADA EMAJAGUA	PREQ36A	2.5	E	1
RÍO MAUNABO*	PRER37A	36.0	E	1
QUEBRADA MANGLILLO	PRSQ38A	1.0	S	1
QUEBRADA FLORIDA	PRSQ39A	3.0	S	1
RÍO JACABOA	PRSR40A	13.0	S	1
QUEBRADA PALENQUE	PRSQ41A	1.0	S	1
RÍO CHICO	PRSR42A	14.6	S	1
RÍO GRANDE DE PATILLAS*	PRSR43A	48.6	S	4
QUEBRADA YAUREL	PRSQ44A	6.0	S	1
RÍO NIGUAS – ARROYO	PRSR45A	21.0	S	1
QUEBRADA SALADA	PRSQ46A	1.7	S	1
QUEBRADA CORAZÓN	PRSQ47A	9.7	S	1
QUEBRADA BRANDERI	PRSQ48A	4.5	S	1
RÍO GUAMANÍ	PRSR49A	22.0	S	1
QUEBRADA MELANÍA	PRSQ50A	7.0	S	2
RÍO SECO	PRSR51A	24.7	S	1
QUEBRADA AMORÓS	PRSQ52A	0.7	S	1
QUEBRADA AGUAS VERDES	PRSQ53A	15.0	S	1
RÍO NIGUAS – SALINAS	PRSR54A	102.5	S	1
RÍO JUEYES	PRSR55A	11.0	S	1
RÍO CAYURES	PRSR56A	5.0	S	1
RÍO COAMO*	PRSR57A	115.7	S	3
RÍO DESCALABRADO	PRSR58A	18.8	S	1
RÍO CAÑAS	PRSR59A	8.0	S	1
RÍO JACAGUAS	PRSR60A	89.5	S	4
RÍO INABÓN	PRSR61A	66.7	S	1
RÍO BUCANÁ – CERRILLOS*	PRSR62A	60.4	S	3
RÍO PORTUGUÉS*	PRSR63A	54	S	1

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Table 8: Basins for the Inland Waters Segmentation System

Basin Name	Basin ID	Basin Size (miles)	Region	Sub-Basins
RÍO MATILDE - PASTILLO	PRSR64A	51.2	S	2
RÍO TALLABOA	PRSR65A	59.6	S	1
RÍO MACANÁ	PRSR66A	21.7	S	1
RÍO GUAYANILLA*	PRSR67A	60.0	S	1
RÍO YAUCO	PRSR68A	93.7	S	3
RÍO LOCO	PRSR69A	113.4	S	3
RÍO ARROYO CAJÚL	PRSR70A	7.4	S	1
QUEBRADA BOQUERÓN	PRWQ71A	11.7	W	1
QUEBRADA ZUMBÓN	PRWQ72A	1.7	W	1
QUEBRADA GONZÁLEZ	PRWQ73A	1.8	W	1
QUEBRADA LOS PAJARITOS	PRWQ74A	2.7	W	1
CAÑO CONDE ÁVILA	PRWK75A	4.0	W	1
QUEBRADA IRIZARRY	PRWQ76A	2.0	W	1
RÍO GUANAJIBO*	PRWR77A	324.6	W	9
CAÑO MERLE	PRWK78A	11.1	W	2
RÍO YAGÜÉZ*	PRWR79A	42.2	W	1
QUEBRADA DEL ORO	PRWQ80A	10.0	W	1
CAÑO MANÍ	PRWK81A	3.0	W	1
CAÑO BOQUILLA	PRWK82A	12.3	W	3
RÍO GRANDE DE AÑASCO*	PRWR83A	488.6	W	10
QUEBRADA JUSTO	PRWQ84A	1.0	W	1
QUEBRADA ICACOS	PRWQ85A	1.4	W	1
QUEBRADA CAGUABO	PRWQ86A	1.0	W	1
CAÑO GARCÍA	PRWK87A	2.0	W	1
QUEBRADA GRANDE DE CALVACHE	PRWQ88A	14.8	W	1
QUEBRADA LOS RAMOS	PRWQ89A	6.9	W	1
QUEBRADA PUNTA ENSENADA	PRWQ90A	5.0	W	1
QUEBRADA PILETAS	PRWQ91A	2.0	W	1
RÍO GRANDE	PRWR92A	21.8	W	1
CAÑO DE SANTI PONCE	PRWK93A	4.8	W	1
RÍO GUAYABO	PRWR94A	43.1	W	1
RÍO CULEBRINAS*	PRWR95A	308.8	W	11
CAÑO CORAZONES	PRWK96A	1.3	W	1

*Basins with monitoring station

**The SJBES increased in size because it receives the total miles of five streams basins that contribute to the total drainage area of the estuary system. These water bodies were previously considered as separate basins.

Of the 194 AU (river), a total of forty-nine (49) AU are monitored routinely. Also, two (2) routinely stations were located in two (2) AU of the SJBES. Thirty (30) AU were monitored with Special Monitoring Project Stations. (See Table 9)

Table 9: AU with monitoring stations

AU Name	AU ID	AU with permanent Monitoring Station	AU with Special Project Monitoring Station
Río Guajataca	PRNR3A1	X	
Río Guajataca	PRNR3A2	X	

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Table 9: AU with monitoring stations			
AU Name	AU ID	AU with permanent Monitoring Station	AU with Special Project Monitoring Station
Río Grande de Arecibo	PRNR7A1	X	
Río Grande de Arecibo	PRNR7A2	X	
Río Grande de Arecibo	PRNR7A3	X	
Río Caonillas	PRNR7C1	X	
Río Limón	PRNR7C2	X	
Río Yunes	PRNR7C3	X	
Río Tanamá	PRNR7B2	X	
Río Grande de Manati	PRNR8A1	X	
Río Grande de Manati	PRNR8A2	X	
Río Cialito	PRNR8B	X	
Río Orocovis	PRNR8E1	X	
Río Botijas	PRNR8E2		X
Río Cibuco	PRNR9A	X	
Río Morovis	PRNR9B2		X (2 monitoring stations)
Río de La Plata	PRER10A1	X	
Río de La Plata	PRER10A3	X	
Río de La Plata	PRER10A4	X	
Río de La Plata	PRER10A5	X	
Río Guadiana	PRER10E	X	
Río Cuesta Arriba	PRER10F		X
Río Arroyata	PRER10G	X	
Río Matón	PRER10J	X	
Río Guavate	PRER10K		X
Río Bayamón	PRER12A1	X	
Río Bayamón	PRER12A2	X	
Río Guaynabo	PRER12B	X	
San Juan Bay Estuary System	PREE13A2	X	X
San Juan Bay Estuary System	PREE13A3	X	X
Río Grande de Loiza	PRER14A1	X	
Río Grande de Loiza	PRER14A2	X	
Quebrada Maracuto	PREQ14D		X
Quebrada Grande	PREQ14E		X
Río Cañas	PRER14F		X
Río Gurabo	PRER14G1	X	
Río Valenciano	PRER14G2	X	
Río Bairoa	PRER14H	X	
Río Cagüitas	PRER14I	X	
Río Turabo	PRER14J	X	
Río Cayaguas	PRER14K	X	
Río Espiritu Santo	PRER16A	X	
Río Sábana	PRER19A		X
Quebrada Fajardo	PREQ21A		X
Río Fajardo	PRER22A	X	
Río Demajagua	PRER23A		X

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Table 9: AU with monitoring stations			
AU Name	AU ID	AU with permanent Monitoring Station	AU with Special Project Monitoring Station
Quebrada Aguas Claras	PREQ25A		X
Quebrada Botijas	PREQ28A		X
Río Blanco	PRER30A		X
Quebrada Peña Pobre	PREQ30B		X
Río Antón Ruiz	PRER31A		X
Quebrada Frontera	PREQ32A		X
Río Humacao	PRER33A	X	
Río Candeleró	PRER34A		X
Río Guayanés	PRER35A	X	
Río Maunabo	PRER37A	X	
Río Grande de Patillas	PRSR43A2	X	
Quebrada Melanía	PRSQ50A		X
Quebrada Amorós	PRSQ52A		X
Quebrada Aguas Verdes	PRSQ53A		X
Río Coamo	PRSR57A2	X	
Río Cuyón	PRSR57B		X
Río Bucaná – Cerrillos	PRSR62A1	X	
Río Bucaná – Cerrillos	PRSR62A2	X	
Río Portugués	PRSR63A	X	
Río Matilde-Pastillo	PRSR64A		X
Río Tallaboa	PRSR65A		X
Río Guayanilla	PRSR67A	X	
Río Loco	PRSR69A1		X
Quebrada González	PRWQ73A		X
Quebrada Los Pajaritos	PRWQ74A		X
Río Guanajibo	PRWR77A	X	
Río Rosario	PRWR77C	X	
Río Viejo	PRWR77D	X	
Río Yagüez	PRWR79A	X	
Río Grande de Añasco	PRWR83A	X	
Río Humata	PRWR83D		X
Quebrada Los Ramos	PRWQ89A		X
Río Culebrinas	PRWR95A	X	
Quebrada El Salto	PRWQ95G		X
Quebrada Salada	PRWQ95I		X

Table 10 shows the AUs that does not have monitoring stations.

Table 10: AU without monitoring stations	
AU Name	AU ID
Quebrada de Los Cedros	PRNQ1A
Quebrada del Toro	PRNQ2A
Quebrada Las Sequías	PRNQ3B
Quebrada Bellaca	PRNQ4A
Río Camuy	PRNR5A
Quebrada Seca	PRNQ6A

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Table 10: AU without monitoring stations	
AU Name	AU ID
Río Santiago	PRNR7A1a
Río Tanamá	PRNR7B1
Río Manatí	PRNR8A3
Río Toro Negro	PRNR8C1
Río Bauta	PRNR8C2
Río Sana Muertos	PRNR8D
Río Indios	PRNR9B1
Río Unibón	PRNR9B3
Río Mavillas	PRNR9C
Río De Los Negros	PRNR9D
Río de La Plata	PRER10A2
Río Lajas	PRER10B
Río Bucarabones	PRER10C
Río Cañas	PRER10D
Río Hondo	PRER10H
Río Usabón	PRER10I1
Río Aibonito	PRER10I2
Río Minillas	PRER12C
Río Canóvanas	PRER14B
Río Canovanillas	PRER14C
Río Emajagua	PRER14L
Río Herrera	PRER15A
Río Espíritu Santo	PRER16A1
Río Mameyes	PRER17A
Río Mameyes	PRER17A1
Quebrada Mata de Plátano	PREQ18A
Río Sábana	PRER19A1
Río Juan Martín	PRER20A
Quebrada Ceiba	PREQ24A
Río Dagua	PRER26A
Quebrada Palma	PREQ27A
Río Santiago	PRER29A
Río Santiago	PRER29A1
Quebrada Mulas	PREQ31A1
Río Ingenio	PRER35A1
Quebrada Emajagua	PREQ36A
Quebrada Manglillo	PRSQ38A
Quebrada Florida*	PRSQ39A
Río Jacabo	PRSR40A
Quebrada Palenque	PRSQ41A
Río Chico	PRSR42A
Río Grande de Patillas	PRSR43A1
Río Marín	PRSR43B
Quebrada Yaurel	PRSQ44A
Río Niguas de Arroyo	PRSR45A
Quebrada Salada	PRSQ46A
Quebrada Corazón	PRSQ47A

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Table 10: AU without monitoring stations	
AU Name	AU ID
Quebrada Branderi	PRSQ48A
Río Guamaní	PRSR49A
Río Seco	PRSR51A
Río Niguas de Salinas	PRSR54A
Río Jueyes	PRSR55A
Río Cayures	PRSR56A
Río Coamo	PRSR57A1
Río Descalabrado	PRSR58A
Río Cañas	PRSR59A
Río Jacaguas	PRSR60A1
Río Jacaguas	PRSR60A2
Río Inabón	PRSR61A
Quebrada del Agua	PRSQ64A1
Río Macaná	PRSR66A
Río Yauco	PRSR68A1
Río Yauco	PRSR68A2
Río Loco	PRSR69A2
Río Arroyo Cajúl	PRSR70A
Quebrada Boquerón	PRWQ71A
Quebrada Zumbón	PRWQ72A
Caño Conde Ávila	PRWK75A
Quebrada Irizarry	PRWQ76A
Río Hondo	PRWR77B
Río Duey y Hoconuco	PRWR77E
Río Caín	PRWR77F
Río Cupeyes	PRWR77G
Río Cruces	PRWR77H
Río Grande	PRWR77I
Caño Merle	PRWK78A
Caño Merle	PRWK78A1
Quebrada del Oro	PRWQ80A
Caño Maní	PRWK81A
Caño Boquillas	PRWK82A
Caño Boquillas	PRWK82A1
Caño Boquillas	PRWK82A2
Río Cañas	PRWR83B
Río Casey	PRWR83C
Río Arenas	PRWR83E
Río Mayagüecillo	PRWR83F
Río Guabá	PRWR83G
Río Blanco	PRWR83H
Río Prieto	PRWR83I
Quebrada Justo	PRWQ84A
Quebrada Icacos	PRWQ85A
Quebrada Caguabo	PRWQ86A
Caño García	PRWK87A
Quebrada Grande de Calvache	PRWQ88A

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Table 10: AU without monitoring stations	
AU Name	AU ID
Quebrada Punta Ensenada	PRWQ90A
Quebrada Piletas	PRWQ91A
Río Grande	PRWR92A
Caño de Santi Ponce	PRWK93A
Río Guayabo	PRWR94A
Río Caños (Río Cañas)	PRWR95B
Quebrada Grande	PRWQ95C
Quebrada Las Marías	PRWQ95D
Quebrada Yagruma	PRWQ95E
Quebrada La Salle	PRWQ95F
Quebrada Grande de La Majagua	PRWQ95H
Río Sonador	PRWR95J
Río Guatemala	PRWR95K
Caño Corazones	PRWK96A

* This AU was always dry in this cycle and not assess

For purposes of water quality assessment and planning, PRDNER continues to group all the basins into four (4) geographic regions. The Table 11 presents geographic regions with its corresponding basins as part of the monitoring network and AU with existing or secondary data.

Table 11: Geographic Regions			
Region	Basin	Basins in Permanent Stream Water Quality Network	Assessment Units by Water Quality Existing Data
North	9	4	0
South	33	5	0
East	28*	10	3 (25 monitoring stations)
West	26	4	0

* Included the San Juan Bay Estuary System

For AU with monitoring stations, the water quality assessment made with the data generated at each station is considered indicative of the water quality upstream along the whole AU until it reaches another.

Supplementary information, such as: NPDES compliance evaluation inspections, operation and maintenance inspections, implementation of Best Management Practices (BMPs) by non-point sources, fish-kills or spill events, make possible identified potential pollution sources.

Assessment Unit for Coastal Shoreline

The Coastal Shoreline consists of 64 AUs or segments (See Figure 4), from which fifty-six (56) have monitoring stations and eight (8) AUs without monitoring stations (The AU that do not have monitoring stations were classified on Category 3: Waters for which insufficient available data and/or information to determine if any designated uses are being

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attained). PRDNER completed the relocation process of the coastal stations with the purpose that the greater amount of AUs are monitored.

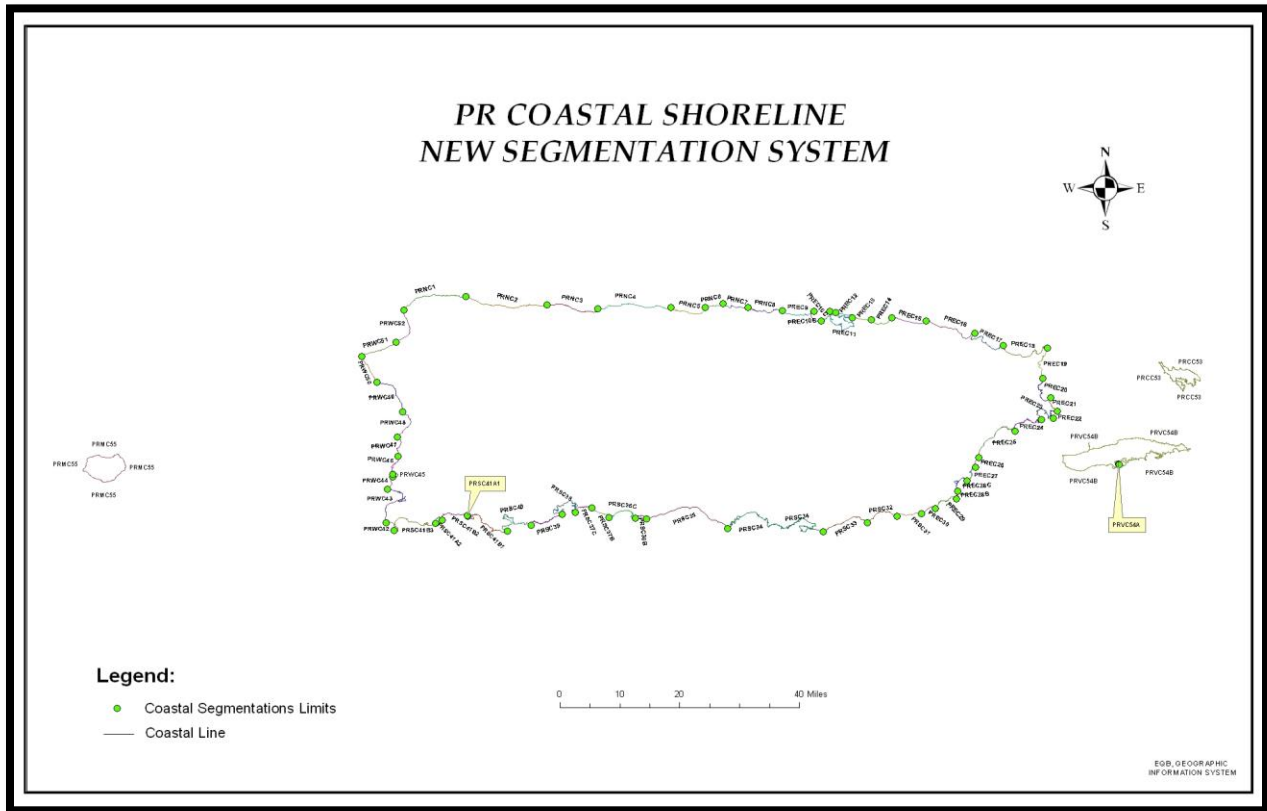


Figure 4: Puerto Rico Coastal Shoreline Segmentation System

With the purpose that the greater amount of AUs are monitored, PRDNER performed a relocation of the monitoring network. The following description provides the rationale for setting the number of stations according to the length of the AU:

- AU with a length of 11 miles or greater, generally have 3 stations
- AU whose length is less than 11 miles but not greater than or equal to 4 miles, usually have two stations
- AU whose length is less than 4 miles usually has one station.

Due to accessibility, the monitoring network excluded AU of Roosevelt Roads Naval Station in Ceiba (PREC21 and PREC22), Vieques (PRVCS4B), Culebra (PRCC53), and Mona Island (PRMC55). Also, AU Isla de Cabra to Punta El Morro (PREC11) was not included.

Nevertheless, the AUs that have waters classified as SA are not monitored by the Coastal Monitoring Network. The Class SA waters are defined in the Puerto Rico Water Quality Standard Regulation (PRWQSR), as coastal and estuarine waters of high quality or exceptional ecological or recreational value whose existing conditions shall not be altered, except by natural phenomena, as defined under this regulation in order to preserve its natural characteristics. The Class SA waters included in the PRWQSR are the following:

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Bahía Biolumicente La Parguera, Lajas, 2.00 miles (AU PRSC41A1), Bahía Monsio José, Lajas, 3.72 miles (AU PRSC41A2) and Bahía Mosquito, Vieques, 3.00 miles (AU PRVC54A).

The Table 12 summarize the coastal shoreline segmentation; the *AU description* column indicates where the AU begins and where it ends.

Table 12: Assessment Units for the coastal shoreline			
Segment ID	Segment Name (AU)	Segment Size (miles)	Region
PRNC01*	Punta Borinquen to Punta Sardina	11.72	North
PRNC02*	Punta Sardina to Punta Manglillo	14.10	North
PRNC03*	Punta Manglillo to Punta Morrillos	9.65	North
PRNC04*	Punta Morrillos to Punta Manatí	13.66	North
PRNC05*	Punta Manatí to Punta Chivato	7.46	North
PRNC06*	Punta Chivato to Punta Puerto Nuevo	3.23	North
PRNC07*	Punta Puerto Nuevo to Punta Cerro Gordo	5.05	North
PRNC08*	Punta Cerro Gordo to Punta Boca Juana	7.32	North
PREC09*	Punta Boca Juana to Punta Salinas	5.78	East
PREC10B*	Punta Salinas to Río Bayamón mouth	2.91	East
PREC10C*	Río Bayamón mouth to Isla de Cabras	6.63	East
PREC11	Isla de Cabras to Punta del Morro	7.79	East
PREC12*	Punta del Morro to west side of Condado Bridge	3.50	East
PREC13*	East side of Condado Bridge to Punta Las Marías	4.31	East
PREC14*	Punta Las Marías to Punta Cangrejos	4.19	East
PREC15*	Punta Cangrejos to Punta Vacía Talega	6.23	East
PREC16*	Punta Vacía Talega to Punta Miquillo	9.46	East
PREC17*	Punta Miquillo to Punta La Bandera	8.41	East
PREC18*	Punta La Bandera to Cabezas de San Juan	10.46	East
PREC19*	Cabezas de San Juan to Punta Barrancas	7.08	East
PREC20*	Punta Barrancas to Punta Medio Mundo	5.33	East
PREC21	Punta Medio Mundo to Punta Puerca	3.00	East
PREC22	Punta Puerca to Isla Cabras	3.30	East
PREC23*	Isla Cabras to Punta Cascajo	8.83	East
PREC24*	Punta Cascajo to Punta Lima	9.07	East
PREC25*	Punta Lima to Morro de Humacao	9.83	East
PREC26*	Morro de Humacao to Punta Candelero	1.84	East
PREC27*	Punta Candelero to Punta Guayanés	3.74	East
PREC28C*	Punta Guayanés to Punta Quebrada Honda	4.68	East
PREC28B*	Punta Quebrada Honda to Punta Yeguas	0.74	East
PREC29*	Punta Yeguas to Punta Tuna	4.35	East
PREC30*	Punta Tuna to Cabo Mala Pascua	2.65	East
PRSC31*	Cabo Mala Pascua to Punta Viento	4.06	South
PRSC32*	Punta Viento to Punta Figuras	6.16	South
PRSC33*	Punta Figuras to Punta Ola Grande	8.10	South
PRSC34*	Punta Ola Grande to Punta Petrona	40.96	South
PRSC35*	Punta Petrona to Punta de Cabullones	2.53	South
PRSC36B*	Punta de Cabullones to Punta Carenero	6.70	South

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Table 12: Assessment Units for the coastal shoreline

Segment ID	Segment Name (AU)	Segment Size (miles)	Region
PRSC36C*	Punta Carenero to Punta Cucharas	9.23	South
PRSC37B*	Punta Cuchara to Cayo Parguera	3.30	South
PRSC37C*	Cayo Parguera to Punta Guayanilla	4.20	South
PRSC38*	Punta Guayanilla to Punta Verraco	13.20	South
PRSC39*	Punta Verraco to Punta Ballenas	6.41	South
PRSC40*	Punta Ballenas to Punta Brea	13.26	South
PRSC41B1*	Punta Brea to Bahía Fosforescente La Parguera	10.93	South
PRSC41A1	Bahía Fosforescente La Parguera	2.00	South
PRSC41B2*	Bahía Fosforescente to Punta Cueva de Ayala	7.00	South
PRSC41A2	Bahía Monsio José	3.72	South
PRSC41B3*	Bahía Monsio José to Faro de Cabo Rojo	13.45	South
PRWC42*	Faro de Cabo Rojo to Punta Águila	2.89	West
PRWC43*	Punta Águila to Punta Guaniquilla	9.54	West
PRWC44*	Punta Guaniquilla to Punta La Mela	2.50	West
PRWC45*	Punta La Mela to Punta Carenero	2.95	West
PRWC46*	Punta Carenero to front of Cayo Ratones	4.00	West
PRWC47*	In front of Cayo Ratones to Punta Guanajibo	3.85	West
PRWC48*	Punta Guanajibo to Punta Algarrobo	5.60	West
PRWC49*	Punta Algarrobo to Punta Cadena	6.98	West
PRWC50*	Punta Cadena to Punta Higüero	4.98	West
PRWC51*	Punta Higüero to Punta del Boquerón	6.14	West
PRWC52*	Punta del Boquerón to Punta Borinquen	6.80	West
PRCC53**	Culebra Island	32.70	Offshore Islands
PRVC54A	Bahía Mosquito	3.00	Offshore Islands
PRVC54B**	Vieques Island	67.60	Offshore Islands
PRMC55	Mona Island	18.60	Offshore Islands

* Assessment Units with monitoring stations

** Assessment Unit with monitoring station only from the Beach Monitoring and Public Notification Program Network.

Monitoring Program

Permanent Water Quality Monitoring Network

The PRDNER monitoring activities for this reporting cycle (October 1, 2017 to September 30, 2019), included routine ambient water quality sampling at the various networks, special water quality studies performed in the water bodies of concern and existing or secondary data requested. Also, where available, effluent quality data from the discharge monitoring reports submitted by NPDES permitted point sources are use as contributing sources that may impact the use support potential of the water bodies. In addition, PRDNER may perform special sampling activities whenever necessary to investigate fish kills, hydrocarbons leak and spills, and illegal discharges to storm sewers and water bodies in order to obtain water quality data to assess the impact.

In this cycle the PRDNER generates data from five (5) routine monitoring networks. This will provide physical, chemical and biological water quality data from the different water bodies. These are:

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- ❖ **Surface Water Monitoring Network:** Operated by the USGS under a cooperative agreement with PR, this network includes fifty-one (51) water quality sampling stations in the 23 major river basins, which corresponds to 51 AUs, in the north, south, east, and west hydrographic regions of PR. The USGS collects samples on a quarterly basis and analyzes for the following parameters:

Flow*	Enterococcus
Specific Conductance *	Total Ammonia - Nitrogen
Temperature	Nitrate + Nitrite as Nitrogen
Dissolved Oxygen	Total Phosphorus
Turbidity	Hardness
pH	Total Nitrogen

* Parameter that does not have numeric standard as establish in the PRWQSR

Analyses for the detection of cyanide and methylene blue active substances (MBAS), as well as the other following parameters, are performed twice a year:

Arsenic	Mercury	Chromium
Cadmium	Selenium	Zinc
Lead	Silver	Copper

* Parameter that does not have numeric standard as establish in the PRWQSR

Additional samples are collected for dissolved solids, as calcium and magnesium.

For data provided by the USGS, all results are used regardless of whether or not they include remarks such as >, <, estimated (E), or average (A), under each parameter. All results reported with or without the aforementioned remarks were used as a valid result for this assessment cycle.

- ❖ **Clean Lakes Monitoring Network:** Operated by PRDNER, this network monitors water quality in the eighteen (18) major lakes (reservoirs) that are mostly used as raw sources of public water supply, propagation and preservation of desirable species, including threatened and endangered species, as well as primary and secondary contact recreation. (See Table 13)

Table 13: Lakes Monitoring Network			
Basin	Segment Waterbody Name	WB Size (acres)	2020 Permanent Monitoring Station ID
Río Guajataca	Lago Guajataca PRNL3A1	1000 acres	10720
			10790
			10790C
Río Grande De Arecibo	Lago Dos Bocas PRNL17A1	634 acres	25110
			27090
			27090E

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Table 13: Lakes Monitoring Network			
Basin	Segment Waterbody Name	WB Size (acres)	2020 Permanent Monitoring Station ID
Río Grande De Arecibo	Lago Caonillas PRNL ₂ 7C1	700 acres	89001
			89002
			89003
Río Grande De Arecibo	Lago Garzas PRNL ₃ 7A3	108 acres	20050
Río Grande De Manatí	Lago Matrullas PRNL ₂ 8C1	77 acres	89009
			89010
Río De La Plata	Lago La Plata PREL ₁ 10A1	560 acres	44400
			44950
			44950C
Río De La Plata	Lago Carite PREL ₂ 10A5	333 acres	39900
			39950
			39950C
Río Bayamón	Lago Cidra PREL12A2	268 acres	89029
			89030
			89031
Estuario De La Bahía De San Juan	Lago Las Curías PREE13A2	64.6 acres	89027
Río Grande De Loiza	Lago Loiza PREL14A1	713 acres	57500
			58800
			58800D
Río Grande De Patillas	Lago Patillas PRSL43A1	312 acres	89022
			89023
			89024
Quebrada Melanía	Lago Melanía PRSL50A	35 acres	89026
Río Jacaguas	Lago Guayabal PRSL ₁ 60A1	373 acres	89011
			89012
			89013
Río Jacaguas	Lago Toa Vaca PRSL ₂ 60A1	836 acres	89014
			89015
			89016
Río Bucaná-Cerrillos	Lago Cerrillos PRSL62A1	700 acres	89032
			89033
			89034
Río Yauco	Lago Luchetti PRSL68A1	266 acres	89017
			89018
			89019
Río Loco	Lago Loco PRSL69A	69 acres	89021C
Río Grande de Añasco	Lago Guayo PRWL83H	285 acres	89004
			89005
			89006

Samples taken at these lakes are analyzed for the following parameters:

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Total Ammonia Nitrogen	Dissolved Oxygen (profile)
Total Nitrogen	Mercury
Hardness	Turbidity
Nitrate (NO ₃ ⁻) + Nitrite (NO ₂ ⁻)	Pesticides (organochlorides)
pH	Temperature (profile)
Copper	Nickel
Arsenic	Zinc
Enterococcus	Cadmium
Lead	Selenium
Total Phosphorous	

All parameters are collected once in each of three (3) sampling cycles (rainy season, dry season, and midpoint between these two periods).

October-November- represents flows greater than low flow

February-March- represents minimum dilution of discharge; typically, lowest rainfall period in Puerto Rico

May- represents first stream flush-effects

August-September- represents flows greater than low flow; typically, more humid and highest ambient temperature in Puerto Rico

- ❖ **Coastal Monitoring Network:** Operated by PRDNER, this network includes one hundred four (104) monitoring stations around the coastal perimeter of PR (See Table 14). The network covers a total of 419.01 coastal miles of PR's main island, out of a total 546.63 shore miles from the archipelago. The Coastal Monitoring Network Stations are sampled for the following parameters:

Enterococcus	Total Nitrogen
pH	Dissolved Oxygen
Temperature	Salinity
Turbidity	***Oil and Grease
Metals	

*** Sample for this parameter will be collected only if oil sheen is observed in the water body.

Table 14: Coastal Monitoring Network - Monitoring Stations					
Station Number	AU ID	Classification (WQSR)	Coordinates		Frequency of Sampling
			Latitude	Longitude	
MAC-049	PRNC04	SB	18° 29' 12.30"	66° 40' 33.92"	Every two months
SBZ-008	PRNC04	SB	18° 29' 03.84"	66° 34' 39.01"	Every two months
MAC-055	PRNC04	SB	18° 28' 54.93"	66° 32' 11.61"	Every two months
SEG5-01	PRNC05	SB	18° 28' 36.50"	66° 30' 24.80"	Every two months
SBZ-010	PRNC05	SB	18° 28' 22.50"	66° 29' 08.36"	Every two months

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Table 14: Coastal Monitoring Network - Monitoring Stations

Station Number	AU ID	Classification (WQSR)	Coordinates		Frequency of Sampling
			Latitude	Longitude	
MAC-087	PRNC06	SB	18° 29' 30.80"	66° 23' 55.28"	Every two months
SEG7-01	PRNC07	SB	18° 29' 24.70"	66° 23' 40.49"	Every two months
MAC-088	PRNC07	SB	18° 28' 52.56"	66° 20' 26.81"	Every two months
SBZ-013	PRNC08	SB	18° 28' 32.86"	66° 19' 11.95"	Every two months
SBZ-014	PRNC08	SB	18° 28' 28.22"	66° 16' 51.88"	Every two months
SEG9-01	PRNC09	SB	18° 28' 15.66"	66° 14' 47.38"	Every two months
MAC-077	PRNC09	SB	18° 28' 21.27"	66° 11' 09.68"	Every two months
MAC-063	PREC10B	SB	18° 27' 17.64"	66° 10' 43.31"	Every two months
SEG10C-01	PREC10C	SB	18° 27' 09.58"	66° 09' 27.38"	Every two months
SEG10C-02	PREC10C	SB	18° 27' 55.18"	66° 08' 19.21"	Every two months
SBZ-019	PREC12	SB	18° 28' 01.72"	66° 05' 25.19"	Every two months
SBZ-018	PREC12	SB	18° 28' 00.23"	66° 05' 12.00"	Every two months
B-1	PREC13	SB	18° 27' 40.07"	66° 04' 56.67"	Every two months
B-2	PREC13	SB	18° 27' 10.84"	66° 02' 55.97"	Every two months
EB-40	PREC14	SB	18° 26' 38.73"	66° 01' 19.74"	Every two months
SEG14-01	PREC14	SB	18° 26' 45.50"	66° 00' 13.10"	Every two months
B-3	PREC14	SB	18° 27' 01.86"	65° 59' 48.63"	Every two months
SEG14-02	PREC14	SB	18° 27' 32.84"	66° 59' 34.27"	Every two months
SBZ-024	PREC15	SB	18° 27' 22.62"	65° 58' 25.74"	Every two months
SBZ-026	PREC15	SB	18° 26' 52.29"	65° 54' 22.43"	Every two months
SBZ-027	PREC16	SB	18° 26' 04.49"	65° 51' 08.34"	Every two months
SBZ-028	PREC16	SB	18° 25' 24.30"	65° 49' 44.73"	Every two months
SEG17-01	PREC17	SB	18° 24' 08.80"	65° 46' 19.90"	Every two months
MAC-009	PREC17	SB	18° 23' 05.67"	65° 43' 47.98"	Every two months
SBZ-030	PREC18	SB	18° 22' 54.72"	65° 43' 06.45"	Every two months
SEG23-01	PREC23	SB	18° 13' 29.20"	65° 37' 00.40"	Every two months
SEG20-02	PREC20	SB	18° 15' 46.10"	65° 37' 48.13"	Every two months
SEG20-01	PREC20	SB	18° 17' 06.10"	65° 37' 52.60"	Every two months
MAC-078	PREC19	SB	18° 20' 02.39"	65° 37' 48.76"	Every two months
MAC-010	PREC18	SB	18° 22' 10.45"	65° 38' 10.79"	Every two months
SEG24-02	PREC24	SB	18° 12' 10.90"	65° 40' 08.10"	Every two months
SEG25-01	PREC25	SB	18° 11' 22.80"	65° 43' 10.60"	Every two months
MAC-080	PREC25	SB	18° 11' 12.94"	65° 43' 33.48"	Every two months
MAC-081	PREC25	SB	18° 09' 27.90"	65° 45' 21.44"	Every two months
SEG26-01	PREC26	SB	18° 06' 32.70"	65° 47' 00.60"	Every two months
SEG27-01	PREC27	SB	18° 04' 52.64"	65° 47' 47.60"	Every two months
MAC-012	PREC28C	SB	18° 03' 45.70"	65° 49' 09.10"	Every two months
SBZ-040	PRSC32	SB	17° 58' 26.00"	65° 59' 19.00"	Every two months
SEG31-01	PRSC31	SB	17° 58' 23.50"	65° 56' 39.10"	Every two months
MAC-082	PREC30	SB	17° 59' 31.69"	65° 53' 28.32"	Every two months
SEG29-02	PREC29	SB	18° 00' 20.70"	65° 52' 16.60"	Every two months
SEG29-01	PREC29	SB	18° 00' 53.90"	65° 50' 44.50"	Every two months
SBZ-038	PREC28B	SB	18° 01' 44.54"	65° 49' 52.27"	Every two months
SBZ-037	PREC28C	SB	18° 02' 34.97"	65° 50' 00.06"	Every two months
MAC-020	PRSC35	SB	17° 57' 13.67"	66° 24' 22.76"	Every two months
SEG34-02	PRSC34	SB	17° 57' 35.60"	66° 22' 13.50"	Every two months

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Table 14: Coastal Monitoring Network - Monitoring Stations

Station Number	AU ID	Classification (WQSR)	Coordinates		Frequency of Sampling
			Latitude	Longitude	
SEG34-01	PRSC34	SB	17° 58' 39.30"	66° 19' 56.90"	Every two months
MAC-019	PRSC34	SB	17° 57' 04.76"	66° 13' 34.38"	Every two months
MAC-017	PRSC33	SB	17° 55' 55.97"	66° 09' 03.62"	Every two months
SEG33-01	PRSC33	SB	17° 57' 46.18"	66° 03' 55.95 "	Every two months
MAC-083	PRSC32	SB	17° 57' 43.14"	66° 02' 23.94"	Every two months
MAC-084	PRSC37B	SB	17° 58' 15.88"	66° 40' 38.16"	Every two months
MAC-023	PRSC36C	SB	17° 58' 54.05"	66° 37' 33.87"	Every two months
MAC-022	PRSC36C	SB	17° 58' 13.93"	66° 37' 04.75"	Every two months
SEG36B-01	PRSC36B	SB	17° 58' 09.40"	66° 36' 09.80"	Every two months
SEG35-02	PRSC35	SB	17° 58' 30.80"	66° 32' 09.40"	Every two months
PSEG35-01	PRSC35	SB	17° 59' 26.10"	66° 29' 11.20"	Every two months
MAC-030	PRSC39	SB	17° 57' 54.22"	66° 48' 33.45"	Every two months
MAC-028	PRSC38	SB	17° 59' 43.51"	66° 47' 06.50"	Every two months
MAC-089	PRSC38	SB	18° 00' 22.54"	66° 46' 06.00"	Every two months
MAC-027	PRSC38	SB	17° 59' 39.62"	66° 45' 43.21"	Every two months
MAC-025	PRSC37C	SB	17° 59' 00.12"	66° 45' 12.90"	Every two months
MAC-024	PRSC37C	SB	17° 59' 29.54"	66° 43' 53.30"	Every two months
SEG41B2-01	PRSC41B2	SB	17° 58' 24.30"	67° 02' 57.50"	Every two months
SBZ-046	PRSC41B2	SB	17° 58' 19.17"	66° 01' 55.12"	Every two months
SEG41B1-01	PRSC41B1	SB	17° 57' 40.30"	66° 58' 55.30"	Every two months
SBZ-045	PRSC41B1	SB	17° 56' 19.57"	66° 54' 21.05"	Every two months
MAC-034	PRSC40	SB	17° 57' 53.14"	66° 54' 30.46"	Every two months
MAC-085	PRSC40	SB	17° 57' 09.11"	66° 53' 04.42"	Every two months
SEG39-01	PRSC39	SB	17° 57' 22.80"	66° 51' 18.09 "	Every two months
SEG41B3-01	PRSC41B3	SB	17° 57' 54.60"	67° 10' 44.40"	Every two months
SEG41B3-02	PRSC41B3	SB	17° 56' 07.60"	67° 11' 25.00"	Every two months
SEG42-01	PRSC42	SB	17° 57' 05.00"	67° 11' 47.80"	Every two months
SBZ-047	PRSC43	SB	17° 58' 29.26"	67° 12' 46.46"	Every two months
SBZ-048	PRWC43	SB	17° 58' 57.49"	67° 12' 55.51"	Every two months
MAC-037	PRWC43	SB	18° 01' 09.99"	67° 10' 20.08"	Every two months
SBZ-050	PRWC44	SB	18° 02' 56.20"	67° 11' 51.10"	Every two months
SBZ-051	PRWC44	SB	18° 03' 52.32"	67° 11' 51.10"	Every two months
SEG45-01	PRWC45	SB	18° 04' 24.40"	67° 11' 17.40"	Every two months
SBZ-052	PRWC46	SB	18° 05' 42.37"	67° 11' 42.36"	Every two months
SEG47-01	PRWC47	SB	18° 08' 26.60"	67° 10' 48.30"	Every two months
MAC-038	PRWC48	SB	18° 11' 41.18"	67° 09' 21.07"	Every two months
MAC-040	PRWC48	SB	18° 13' 19.02"	67° 10' 08.05"	Every two months
MAC-041	PRWC49	SB	18° 17' 16.31"	67° 11' 38.23"	Every two months
SEG49-01	PRWC49	SB	18° 17' 41.80 "	67° 12' 36.00 "	Every two months
SBZ-054	PRWC50	SB	18° 18' 47.81"	67° 14' 34.21"	Every two months
SBZ-055	PRWC50	SB	18° 20' 26.52"	67° 15' 22.16"	Every two months
SEG51-01	PRWC51	SB	18° 22' 14.20"	67° 15' 25.00"	Every two months
SEG51-02	PRWC51	SB	18° 23 '4.42"	67° 12' 45.81"	Every two months
MAC-043	PRWC52	SB	18° 24' 51.78"	67° 09' 42.05"	Every two months
SBZ-002	PRWC52	SB	18° 27' 28.01"	67° 09' 49.21"	Every two months
SBZ-003	PRNC01	SB	18° 29' 26.21"	67° 09' 25.09"	Every two months

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Table 14: Coastal Monitoring Network - Monitoring Stations					
Station Number	AU ID	Classification (WQSR)	Coordinates		Frequency of Sampling
			Latitude	Longitude	
SBZ-004	PRNC01	SB	18° 30' 51.24"	67° 04' 32.41"	Every two months
MAC-044	PRNC01	SB	18° 30' 30.49"	67° 01' 22.85"	Every two months
MAC-086	PRNC02	SB	18° 29' 23.21"	66° 57' 31.76"	Every two months
SBZ-006	PRNC02	SB	18° 29' 26.16"	66° 51' 21.16"	Every two months
MAC-047	PRNC02	SB	18° 29' 15.53"	66° 49' 42.50"	Every two months
SBZ-007	PRNC03	SB	18° 29' 34.51"	66° 47' 53.70"	Every two months
SEG3-01	PRNC03	SB	18° 28' 45.33"	66° 47' 70.04"	Every two months

- ❖ **Beach Monitoring and Notification Program Network:** Operated by PRDNER, implemented in 35 beaches included in the Beach Monitoring and Public Notification Program. All the stations were sample biweekly for the Enterococcus, pH and Temperature parameters. From April 2015, bacteriological samples are analyzed using Defined Substrate Technology and Quanti-Tray (Enterolert). These changes were made to comply with the CWA as amended by Beaches Environmental Assessment and Coastal Health Act (Beach Act) that requires comply with the requirements of the National Beach Guidance and Required Performance Criteria for Grants (NBGRPCG) 2014. This document outlines the eleven (11) performance criteria that States and eligible territorial, tribal or local governments, must meet in order to receive the grant from the United State Environmental Protection Agency (USEPA), to implement programs of monitoring, and public notification of recreational waters under section 406 of the CWA. The frequency of samples collection is every two weeks, throughout the year, since in PR, the season variability through the whole year is not significant and local bathers and tourists visit the beaches frequently.

All sampling and analytical activities are subjected to a Water Quality Assurance Program Plan, coordinated through the Quality Assurance Control Officer of the Water Quality Area and the Division of Environmental Science and Assessment of USEPA Region II.

Each monitoring initiative is supported by the corresponding Quality Assurance Project Plan (QAPP), which must comply with the Water Program’s Quality Assurance Management Plan (QAMP).

All samples are collected, preserved, transported and analyzed in accordance with the protocols established in the corresponding QAPP. The purpose and goals of PRDNER’s fixed monitoring station programs are:

1. Provide current data on the quality of the various water bodies throughout PR.
2. Provide information on specific pollutants of concern and uses that may be impaired in the different water bodies monitored.

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3. Provide information on potential pollution sources responsible for water quality impairment.
4. Provide information to determine the compliance with the water quality standards applicable to the different designated uses as established in the PRWQSR.
5. Determine if the pollution control measures being implemented throughout PR are effective in protecting the quality of the different water bodies.

Data generated from the rivers and stream stations sampled and analyzed by the USGS are not available through national STORET data base; however, the data is available in the Internet through the water quality portal (www.waterqualitydata.us/) or hardcopy files from its Caribbean Field Office.

Special Monitoring Projects

In Situ Measurements of Physical Parameters in segment of water bodies included in the 303(d) List

Not having a permanent monitoring station some water bodies have remained on the 303(d) List for several cycles. As established in the Section 6.2 303(d) List – Delisting Criteria of this Assessment Methodology, if, a previously listed parameter complied fully with the applicable water quality standard, over two consecutive cycle that specific parameter will be delisted. For this reason, the PRDNER carried out a water quality sampling project: **In Situ Measurements of Physical Parameters in segment of water bodies included in the 303(d) List - FYs 2016-2017 and 2018-2019.**

From 2004 to 2016, WQA, in a collaboration agreement with the USGS and USEPA, has carry out synoptic/special surveys in several surface water bodies, to assess their water quality. From the evaluation performed by the Plans and Special Project Division (PSPD), various AUs have been listed as impaired in the 303(d) List due to non-compliance primarily with one or more physical water quality standards.

Since many of these surface water AUs have been evaluated once throughout the period of 2004 through 2016 and are not part of a permanent monitoring network, the WQA proposed to conduct a two cycle FYs 2016-2017 and 2018-2019 special study to carry out *in-situ* measurements of pH, temperature, DO, and turbidity in the mentioned AUs. The information compiled was used to determine compliance with the applicable water quality standards. This data will be used by the PSPD to determine if the water bodies can be delisted from the 303(d) List. In addition, data will supplement the Storage and Retrieval (STORET) Warehouse Database of USEPA.

The project included thirty-one (31) surface water sites at twenty-five (25) basins in PR. In-situ measurements were collected every four months in previously identified stations for Temperature, pH and DO measurements in all stations. However, turbidity measurements were taken only at Río Blanco (PRER30A), Río Tallaboa (PRSR65A), Río Loco (PRSR69A1), and Río Humata (PRWR83D) stations.

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Once was completed, the following AU were removed from the 2020 303(d) List for reaching the water quality standard.

AU delisted from 303(d) - In Situ Measurements of Physical Parameters in segment of water bodies included in the 303(d) List - FYs 2016-2017 and 2018-2019		
AU ID	Type of water	Parameter
PRNR8E2	River	Dissolved Oxygen
PRNR9B2	River	pH
PRER10F	River	pH
PREQ14D	Stream	Dissolved Oxygen
PRER19A	River	Dissolved Oxygen
PREQ25A	Stream	Temperature
PRER30A	River	Dissolved Oxygen
PRSQ50	Stream	Temperature
PRSR57B	River	Dissolved Oxygen
PRSR64A	River	Dissolved Oxygen
PRSR65A	River	Turbidity
PRWR83D	River	Turbidity
PRWQ95I	Stream	Dissolved Oxygen

Mosquito Bay, Vieques Study

The PRDNER has established a cooperative agreement with the PR Department of Natural and Environmental Resources (PRDNER). The Vieques Conservation Historical Trust (VCHT) and the USGS. The objective of the study is to maintain a permanent monitoring station in Mosquito Bay on Vieques (See Figure 5). The station (50231500) is equipped with a multi-parameter meter collecting water quality data in real time at 15-minute intervals.

The parameters collected are: water temperature, salinity, conductivity, chlorophyll "a", dissolved oxygen, pH and turbidity. Since Mosquito Bay is classified as SA waters, the data only will be considerate as a reference in order to assist the PRDNER to identify the condition of the water body. The data is available through Internet on the following addresses: http://nwis.waterdata.usgs.gov/pr/nwis/uv/?site_no=50231500

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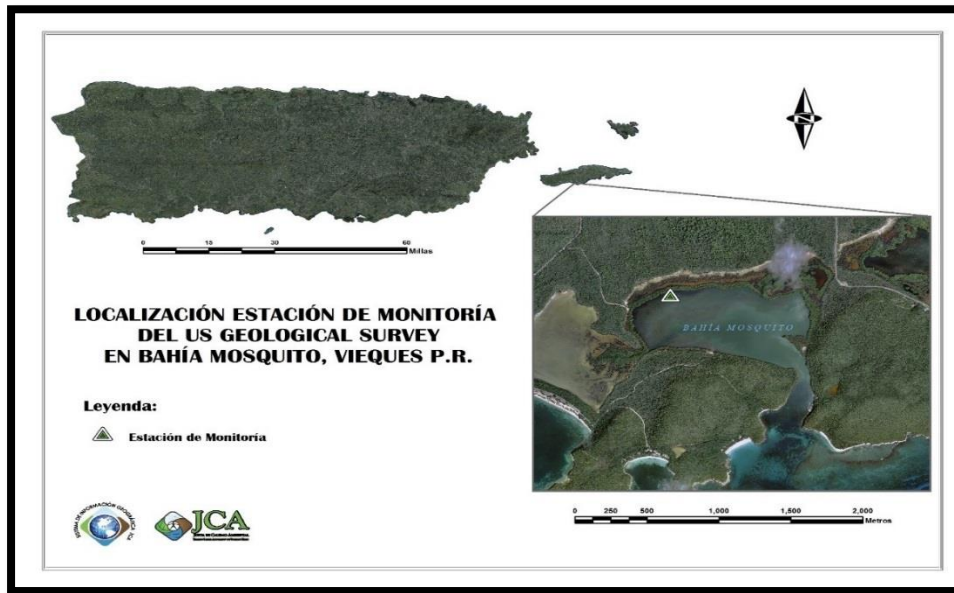


Figure 5: Monitoring Station in Mosquito Bay, Vieques

Water Quality Existing Data

The development of the IR requires the assessment of existing and readily available water quality-related data and information. In addition, PR is required to evaluate and consider any other readily available information. The assessment determination must include all relevant data that is consistent with the QA/QC requirements established in the QAPP for the use of Water Quality Existing Data for the Development of the 303(d)/305(b) IR, May 2016. For the development of the IR in addition to the water quality data obtained by the routine monitoring network, secondary or external data requested from governmental agencies, non-governmental entities and/or reliable sources of the web should be considered.

Existing data will be gathered and used to address the following objectives related to the assessment of the quality of the water bodies:

- **Objective 1:** Determine compliance with the water quality criteria and attainment with the designated uses;
- **Objective 2:** Develop the 303(d) list and the AUs to be delisted;
- **Objective 3:** Develop and publish the 303(d)/305(b) IR.

The data requested and downloaded must be from the previous two federal fiscal years from the even-numbered year that comprises the assessment cycle (October 1, 2017 to September 30, 2019). The information must be comparable to the PRWQSR, in order to supplement the information available from PRDNER's monitoring networks to carry out the water quality assessment.

The list of sources PRDNER has actively solicited data from includes government agencies and non-governmental entities can be found in the Table 15 below.

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Table 15: Government Agencies and Non-Governmental Entities

Name	Position	Agency
Eng. Alejandro Abrams	Chairman	Associated General Contractors of America PR Chapter
Ms. Irma López, Esq.	Executive Director, Environmental Compliance and Quality Control	PR Aqueduct and Sewer Authority
Eng. Alexandra Velázquez Delgado	Director, Programming and Special Studies	PR Highway and Transportation Authority
Ms. Jeannette Villamil Rivera	Chief, Environmental Studies Office	PR Highway and Transportation Authority
Mr. Antonio Ríos Díaz	Acting Director, Division of Planning, Operation and Engineering	Solid Waste Management Authority
Mr. Ruberto Berrios	Manager, Water Quality Department	PR Electric Power Authority
Ms. Lizette Ríos	Supervisor of Compliance Water Quality Department	PR Electric Power Authority
Ms. Aitza Pabón	Director, Jobos Bay Natural Estuarine Research Reserve	Jobos Bay National Estuarine Reserve
Eng. Pablo Vázquez Ruiz	Chairman	College of Engineers and Land Surveyors of PR
Dr. Alejandro Pérez Ramírez	Director, Agrological Laboratory	PR Department of Agriculture
Mr. Raúl Santini	Environmental Coordinator II, Coastal Zone Division	Department of Natural and Environmental Resources
Mr. Ernesto L. Díaz	Director, Coastal Zone Division Program	Department of Natural and Environmental Resources
Dr. Jorge Bauzá	Director Environmental Scientific	San Juan Bay Estuary
Mr. Sixto A. Machado Ríos	Director of Geology and Hydrogeology	PR Planning Board
Mr. Wilfredo Mass Arroyo	Flood Unit Planning Analyst	PR Planning Board
Ms. Rose A. Ortiz Díaz	Coastal Zone Unit Coordinator	PR Planning Board
Dra. Yazdel Martínez	Dean of Academic Affairs	Pontifical Catholic University of PR – Arecibo Campus
Ms. Jackeline Rosas Negrón	Director, College of Science	Pontifical Catholic University of PR – Mayagüez Campus
Dr. Carlos Lugo Ortiz	Director, Biology Department	Pontifical Catholic University of PR – Ponce Campus
Prof. Carmen Reyes Colón	Coordinator Environmental Sciences Program	Pontifical Catholic University of PR – Ponce Campus
Dra. Graciela I. Ramírez Toro	Director of Centro de Educación e Interpretación Ambiental (CECIA)	Interamerican University of PR
Mr. Roberto Vargas	Director, Department of Agro-Environmental Sciences	University of PR – Mayagüez Campus
Dr. Ernesto Otero	Director Department of Marine Sciences	University of PR – Mayagüez Campus
Dr. Luis R. Pérez Alegría	Professor Agricultural Engineering Department	University of PR–Mayagüez Campus
Mr. Ruperto Chaparro Serrano	Director, Sea Grant College Program	University of PR – Mayagüez Campus

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Table 15: Government Agencies and Non-Governmental Entities

Name	Position	Agency
Dra. Ana Navarro Rodríguez	Associate Investigator Sea Grant College Program	University of PR– Mayagüez Campus
Prof. Gloriselle Negrón Ríos	Water Quality Specialist	Agriculture Extension Services
Prof. Héctor López Méndez	Director, Agricultural Engineering Department	University of PR– Mayagüez Campus
Mr. Juan Hernández	Acting Director	Natural Resources Conservation Service (NRCS) Caribbean Area
Ms. Marelisa Rivera	Deputy Field Supervisor	US Fish and Wildlife Service PR Field Office
Dra. Teresa Lipsett	Dean of School of Environmental Science and Technology	Turabo University
Dr. Carlos M. Padín Bibiloni	Rector	Metropolitan University of PR
Eng. Héctor J. Cruzado	Director, Department of Civil and Environmental Engineering	Polytechnic University of PR
Ms. Lizzette Rodríguez	Director, Department of Geology	University of PR– Mayagüez Campus
Dr. Luis A. Ríos Hernández	Associate Professor Biology Department	University of PR– Mayagüez Campus
Dr. Sangchul Hwang	Associated Professor Department of Civil Engineering and Surveying	University of PR– Mayagüez Campus
Ms. Olga M. Ramos	GIS Analyst and Remote Sensing Lab	International Institute of Tropical Forestry Jardín Botánico Sur
Ms. Lirio Márquez D’Acunti	Executive Director	Vieques Conservation and Historical Trust
Mr. Mark Martin Bras	Director of Community Relations	Vieques Conservation and Historical Trust
Ms. María Calixta Ortiz Rivera	Dean School of Environmental Affairs	Metropolitan University of PR
Dra. Nadia Fernández	Associate Dean of School of Science and Technology	Metropolitan University of PR
Dr. Gabriel Infante Méndez	Professor of School of Science and Technology	Metropolitan University of PR
Dr. Roberto Viqueira	Executive Director	Protectores de Cuencas, Inc.
Ms. Deborah Rivera Velázquez	Director Environmental Affairs Department	Autonomous Municipality of Carolina
Ms. Carmen Guerrero	Director, Caribbean Environmental Protection Division	Environmental Protection Agency
Ms. Yasmin Laguer	Caribbean Environmental Protection Division	Environmental Protection Agency
Mr. Juan C. Muñoz Ruiz	PR Agrological Laboratory	PR Department of Agriculture

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As result of the water quality data request, the following government agencies and/or non-governmental entities responded and submitted data:

1. Mrs. Yazmin Laguer-EPA CEPD
 - a. DMR data (from the past two years 2017 to 2019). The DMR data is used to identify potential sources for water quality impairment.
2. San Juan Bay Estuary System Program (SJBES)
 - a. The monitoring network consists of 25 monitoring stations. (See Figure 6)
 - b. Parameters analyzed: temperature, dissolved oxygen, specific conductance, salinity, turbidity, pH, transparency, oil and grease, total nitrate & nitrite, total phosphorus and Enterococcus.
 - c. The SJBES Program has an approved QAPP by USEPA.
 - d. This data was used for the 2020 IR assessment.
3. NOAA - Bahía de Jobos
 - a. The data was obtained of the following site hosted by NOAA: National Estuarine Research Reserve System, Centralized Data Management Office <http://cdmo.baruch.sc.edu/>.
 - b. Monitoring network consist of 4 monitoring stations. (See Figure 7)
 - c. Parameters analyzed: Temperature, pH, salinity, Dissolved Oxygen and Turbidity.
 - d. *Disclaimer: PREQB does not know the quality requirements of the sampling and analysis of the water quality data submitted to the agency, thus the quality of the secondary data is unknown.*
 - e. This data was used for the 2020 IR assessment.



Figure 6: San Juan Bay Estuary System Monitoring Stations

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Figure 7: NOAA - Bahía de Jobs Monitoring Stations

Water's Quality Existing Data - Access Online

Due to the large amount of published information on the Internet and its accessibility, the PRDNER conducted a search for information related to the quality of the coastal water in PR, in order to evaluate the greater amount of information that is available. To perform a more complete evaluation, the information search is delimited to recognized and reliable sources. The main source of information from which it could access data was the NOAA and its partners in the Caribbean Area. The Caribbean Coastal Ocean Observing System (CariCOOS). CariCOOS has two buoys located on Ponce in the AU PRSC35 and the other on San Juan in the AU PREC12 from which temperature data is obtained. (See Figure 8). The temperature data will be used to evaluate the corresponding assessment units, for these parameters, in addition to the data of the coastal network of PRDNER.

Other important information that was accessed from the internet and included as part of the data in this assessment 2020 cycle is data from the Oceans Acidification Project. The PMEL carbon group is developing a network of carbon dioxide systems on coastal moorings. In PR the monitoring station it is managed by CariCOOS and takes sample for pH and CO₂. (See Figure 9 and Figure 10).

The monitoring station is located in one area of La Parguera at the municipality of Lajas, in the AU PRSC41B2. The pH data will be used to evaluate the corresponding AU, for these parameters, in addition to the data of the coastal network of PRDNER. However, data for CO₂ will not be included for this evaluation cycle, because the PRDNER does not have a water quality standard for this parameter.

Disclaimer: Note from the web page of CariCOOS: This information is presented as a good faith service to the scientific community, the public in general and to our colleagues and friends. The information, views and opinions herein provided should not be viewed as

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formally accurate scientific data and/or advice that can be relied upon without proper verification and validation. This service should not be construed as a substitute for specific data that could be obtained through official sources. If any inaccuracy is observed, please inform CaRA as soon as possible for verification and correction, as necessary. Use of and reliance upon the information provided in this web site signifies that its user(s) understands and have accepted of the above mentioned caveat and conditions.

Disclaimer: Note from the web page of National Data Buoy Center, NOAA: This operational server maintains a current database of meteorological and hydrological data, historical data, and written information generated by the NWS or received from other official sources. In addition, this server accesses in real time a selection of current official weather observations, forecasts, and warnings from U.S. government sources for use by the national and international community. In an effort to enhance the science, experimental products may be accessible on this server and care must be taken when using such products as they are intended for research use.

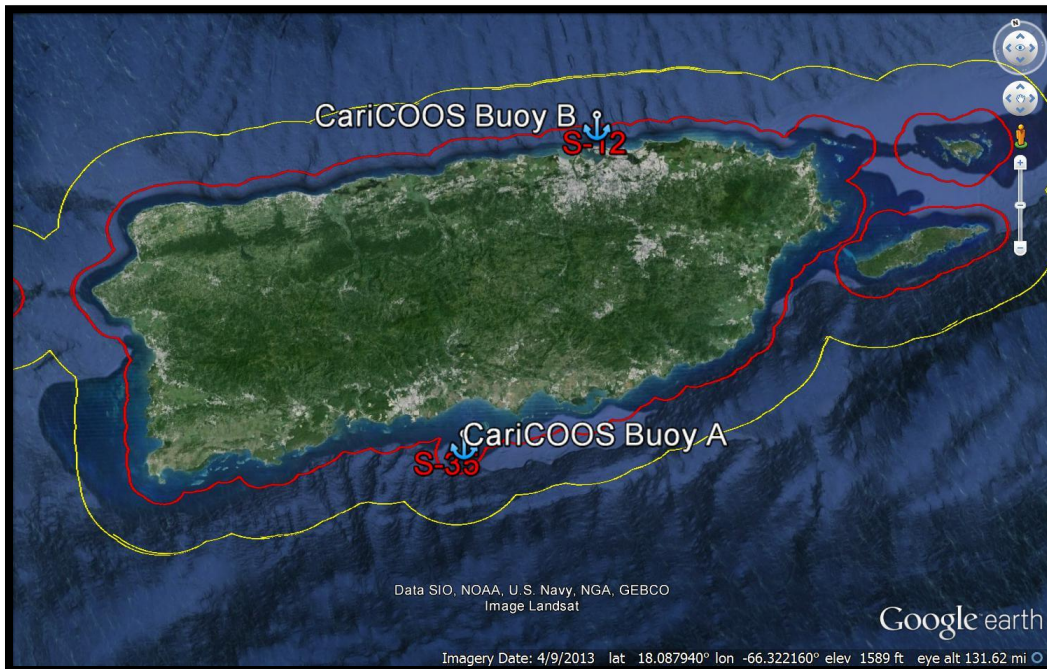


Figure 8: Buoys of CariCoos of NOAA

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Figure 9: Monitoring Station of CariCoos in La Parguera



Figure 10: Buoy in La Parguera (Monitoring Station) NOAA, PMEL

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Designated Uses, and Applicable Water Quality Standards

The PRWQSR, as amended on April 11, 2019 established, as goals preserve, maintain and enhance the quality of the waters of PR in such manner to assure that they are compatible with the social and economic needs of PR.

The PRWQSR establishes the designated uses to be maintained and protected for all waters in the archipelago of PR. These uses include:

1. Propagation and maintenance of desirable species, including threatened or endangered species (Aquatic Life)
2. Primary and secondary contact recreation and
3. Raw source of public water supply (Class SD waters only).

The PRWQSR also includes the corresponding standards to protect each of the designated uses. All waters reported in the IR will be evaluated, based on availability of monitoring data and/or other available information to determine if they comply with the different applicable water quality standards and whether or not the designated uses were attained. The water body classification established in the PRWQSR are as follows:

CLASS SA - Coastal or estuarine waters exceptional quality or exceptional or high ecological or recreational value whose existing conditions shall not be altered, except by natural phenomena, as defined under PRWQSR, in order to preserve its natural characteristics. Class SA includes bioluminescent lagoons and bays such as La Parguera and Monsio José on the municipality of Lajas, Laguna Joyudas in the municipality of Cabo Rojo, Laguna Grande in the municipality of Fajardo, Bahía Puerto Mosquito in the municipality of Vieques, and any other coastal or estuarine waters of exceptional quality or high ecological or recreational value which may be designated by the pertinent agency and adopted by the Department, through Resolution, requiring this classification for protection of the waters. With the exception of lagoons, Rule 1303.2 (A) (2) of the PRWQSR will also apply to the waters 500 meters (0.31 miles) offshore of the physical and geographical limits of the water bodies under this classification.

CLASS SB - Coastal waters and estuarine waters intended for use in primary and secondary contact recreation, and for propagation and maintenance of desirable species, including threatened or endangered species. Class SB includes coastal and estuarine waters not classified as Class SA under Rules 1302.1 (A) of the PRWQSR. Class SB also includes lagoons not classified under any other class. This classification will apply from the zone subject to the ebb and flow of tides (mean sea level) up to a maximum of 10.35 miles (16,656.71 meters) offshore.

CLASS SD - Surface waters intended for use as a raw source of public water supply, propagation and maintenance of desirable species, including threatened or endangered species, as well as primary and secondary contact recreation. All surfaces waters are classified SD, except those classified SE in accordance with Rule 1302.2 (B).

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CLASS SE - Laguna Tortuguero, Laguna Cartagena and any other surface water body of exceptional quality or high ecological or recreational value which may be designated by the pertinent agency and adopted by the Department, through Resolution requiring this classification for protection of the waters. Surface waters and wetlands of exceptional ecological value, whose existing conditions shall not be altered in order to preserve its natural characteristics.

Table 16 and Table 17 summarize the existing applicable water quality standards that will be used to perform the assessment for the 2020 IR. Here are shown the maximum allowable concentrations for specific substances in coastal and surface waters.

Table 16: Specific Water Quality Standards for Selected Parameters (as established in the PRWQSR)		
SUBSTANCE	COASTAL WATERS (ug/l)	RIVERS AND STREAM (ug/l)
Aluminum (Al) ^{&}	-	87.0 (AL)
Antimony (Sb) ^{+,&}	640.0 (HH)	5.06 (HH)
Arsenic (As) ^{*,+,&}	36.0 (AL)	10.0 (DW)
Cadmium (Cd) ^{+,%,&}	7.95 (VA) (AL)	Note 1 (AL)
Chlorine	7.5 (AL)	11.0 (AL)
Cyanide (Free CN) ⁺	1.0 (AL)	-
Cyanide ^{+,&}	-	4.0 (HH)
Copper (Cu) ^{+,&}	3.73 (AL)	Note 3 (AL)
Chromium III (Cr ⁺³) ^{+,&}	-	Note 2 (AL)
Chromium VI (Cr ⁺⁶) ^{+,&}	50.4 (AL)	11.4 (AL)
Fluoride (F ⁻)	-	4,000 (DW)
Lead (Pb) ^{+,%,&}	8.52 (AL)	Note 6 (AL)
Mercury (Hg) ^{+,&}	0.051 (HH)	0.050 (HH)
Nickel (Ni) ^{+,&}	8.28 (AL)	Note 4 (AL)
Selenium (Se) ^{+,&}	71.14 (AL)	5.0 (AL)
Silver (Ag) ^{+,&}	2.24 (AL)	Note 5 (AL)
Sulfide (Undissociated H ₂ S)	2.0 (AL)	2.0 (AL)
Thallium (Tl) ^{+,&}	0.47 (HH)	0.24 (HH)
Zinc (Zn) ^{+,&}	85.62 (AL)	Note 7 (AL)

Note 1 - Concentration in ug/l must not exceed the numerical value given by $e^{(0.7977 [\text{Ln Hardness}] - 3.909)}$

Note 2 - Concentration in ug/l must not exceed the numerical value given by $e^{(0.8190 [\text{Ln Hardness}] + 0.6848)}$

Note 3 - Concentration in ug/l must not exceed the numerical value given by $e^{(0.8545 [\text{Ln Hardness}] - 1.702)}$

Note 4 - Concentration in ug/l must not exceed the numerical value given by $e^{(0.8460 [\text{Ln Hardness}] + 0.0584)}$

Note 5 - Concentration in ug/l must not exceed the numerical value given by $e^{(1.72 [\text{Ln Hardness}] - 6.59)}$

Note 6 - Concentration in ug/l must not exceed the numerical value given by $e^{(1.273 [\text{Ln Hardness}] - 4.705)}$

Note 7 - Concentration in ug/l must not exceed the numerical value given by $e^{(0.8473 [\text{Ln Hardness}] + 0.884)}$

Hardness (as CaCO₃ in mg/L) of the water body

AL - Protection of the water body for the propagation and preservation of desirable species dependent on the waterbody.

DW - Protection of the water body for use as source of drinking water supply.

HH - Protection of the water body or aquatic life for reasons of human health.

* Identifies a substance that may be a carcinogen. The HH criteria is based on a carcinogenicity risk of 10⁻⁵

+ Identifies a priority pollutant.

% In cases where the surface water body is used as a source of drinking water supply, the water quality standard for the indicated substance shall not exceed the drinking water standard upstream from the water intake.

& The number represent a total recoverable value.

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Table 17: Water Quality Standard for Specific Classifications				
Parameter	SA	SB	SD	SE
Color	Note 1	Shall not be altered except by natural phenomena, as defined under this regulation	15 Pt-Co.	Note 1
Dissolved Oxygen	Note 1	Not less than 5 mg/L	Not less than 5 mg/L	Note 1
Enterococcus	Note 1	Note 2	Note 2	Note 1
Fecal Coliforms	Note 1	Note 3	Note 3	Note 1
Other Pathogenic Organisms	Note 1	-	Free of Pathogens	Note 1
pH	Note 1	7.3 - 8.5	6.0 - 9.0	Note 1
Sulfates	Note 1	2,800 mg/L	250 mg/L	Note 1
Surfactants as MBAS	Note 1	500 ug/L	100 ug/L	Note 1
Taste and odor producing substances	Note 1	Shall not be present	Shall not be present	Note 1
Total Dissolved Solids	Note 1	-	500 mg/L	Note 1
Total Ammonia Nitrogen (TAN)	Note 1	-	Note 6	Note 1
Total Nitrogen	Note 1	5,000ug/L	Note 4	Note 1
Total Phosphorous	Note 1	1,000 ug/L	Note 5	Note 1
Temperature	86°F (30°C)	86°F (30°C)	86°F (30°C)	86°F (30°C)
Turbidity	Note 1	10 NTU	50 NTU	Note 1

Note 1 – The concentration of any parameter, whether or not considered in this Rule, shall not be altered, except by natural phenomena as defined under this regulation. Substances reactive with methylene blue shall not be present.

Note 2- For Class SB and Class SD the Enterococcus density, in terms of geometric mean shall not exceed 35 colonies/100mL in any 90-day interval: neither the 90th Percentile of the samples taken shall exceed 130 colonies/100mL in the same 90-day interval.

Note 3- In shellfish growing area or harvesting areas, designated by the pertinent agency and adopted by the Board, through Resolution: the median fecal coliform concentration of a series representative samples of the water taken sequentially, shall not exceed 14 MPN/100mL, and not more than 10 percent of the samples shall exceed 43 MPN/100mL.

Note 4 - Shall not exceed 1,700 ug/L in any stream nor exceed 400 ug/L in any reservoir or lake.

Note 5 – Total Phosphorus shall not exceed 160 ug/L in any river and stream nor exceed 26 ug/L in any reservoir or lake.

Note 6 - Shall not exceed the concentration in mg/L calculated using the following equation:

$$TAN = 0.8876 \times \left(\frac{0.0278}{1 + 10^{7.688 - pH}} + \frac{1.1994}{1 + 10^{pH - 7.688}} \right) \times (2.126 \times 10^{0.028 \times (20 - T)}) \quad \text{Where: } T = \text{temperature in } ^\circ\text{C}.$$

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Water Quality Assessment by Designated Uses

The surface waters (rivers, reservoirs, lagoons, estuaries and coasts) for which data are available are assessed for the following designated uses in accordance with the requirements of the Clean Water Act and the PRWQSR: primary contact recreation (swimming), secondary contact recreation, raw source of public water supply and propagation and maintenance of desirable species, including threatened and endangered species (Aquatic Life).

1. Primary and Secondary Contact Recreation

Class SB and Class SD

The use support evaluation will be based on the Enterococcus density, in terms of geometric mean shall not exceed 35 colonies/100mL in any 90-day interval: neither the 90th Percentile of the samples taken shall exceed 130 colonies/100mL in the same 90-day interval.

2. Raw Source of Public Water Supply (rivers and lakes):

The assessment of the drinking water use will be based on monitored contaminants listed in the PRWQSR and the data obtained from the Source Water Assessment Program (SWAP). The additional criterion used to assess raw sources of public water supply use is the presences of a water intake in the assessment unit. To assess the raw sources of public water supply use, will be considered the compliance of water quality standards of any of the parameters indicated below:

Aldrin	Fluoride
Alpha-BHC	Heptachlor
Cyanide	Lindane (Gamma BHC)
Arsenic	Mercury
Beta-BHC	Total Ammonia Nitrogen
Chlorides	Thallium
Dieldrin	Total, Phosphorus
Endrin Aldehyde	Turbidity
Endosulfan Sulfate	Endrin
Heptachlor Epoxide	Total, Nitrogen
4,4'-DDT	

In all cases, each parameter considered is evaluated strictly in accordance with the applicable standard. If a single data point exceeds the water quality standard, it is sufficient to classified the AU not in compliance with the raw source of public water supply use.

3. Propagation and maintenance of desirable species, including threatened and endangered species (aquatic life):

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Currently, the aquatic life use is based on the physical /chemical data collected on sampling incursions during key periods (wet and dry seasons) for all parameters applicable to this use as indicated in the PRWQSR.

In all cases, each parameter considered will be evaluated strictly in accordance with the applicable standard. The parameters taken into consideration are:

Total Ammonia Nitrogen	Cyanide (Free CN)	Silver
Cyanide	Lead	Sulfide (undissociated H ₂ S)
Cadmium	Mercury	Surfactants
Copper	Niquel	Thallium
Chromium (Cr ⁺⁶)	Pesticides (Organochlorides)	Zinc
Chromium (Cr ⁺³)	Selenium	Total Nitrogen
Total Phosphorus	Arsenic	

The conventional parameters used for the assessment of aquatic life use support were:

Dissolved Oxygen (DO)	Temperature
pH	Turbidity

If a single data point exceeds the water quality standard, it is sufficient to classified the AU not in compliance with the propagation and maintenance of desirable species including threatened and endangered species (aquatic life use).

Assessment Categories

The assessment of the water quality in PR is perform taking into consideration the five (5) attainment categories currently required by USEPA assessment guideline. These attainment categories are:

- Category 1:** Waters that are attaining the applicable water quality standards for all designated uses.
- Category 2:** Waters that are attaining some of the designated uses, but no data is available to make attainment determinations for the remaining designated uses.
- Category 3:** Waters for which insufficient available data and/ or information to determine if any designated uses are being attained.
- Category 4:** Water in which particular designated uses are impaired or threatened and it is expected that they will meet the water quality standard with implementation of the adequate and corresponding control measure without the development of TMDLs.

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- 4a - A state developed TMDL has been approved by USEPA or a TMDL has been established by USEPA for any AU /pollutant combination.
- 4b - Other required control measures are expected to result in the attainment of an applicable water quality standard in a reasonable period of time.
- 4c - Water where a designated use is impaired or threatened by a cause that is not a pollutant (eg. hydrological and habitat alterations)

Category 5: Waters where at least one water quality standard was not attained. The nonattainment of water quality standards requires the development and implementation of a TMDL. Waters identified as impaired in this category are included in the 303(d) List.

Table 18 shows size of waters assigned to reporting categories, including the impairments from previous cycles and the description of the health of PR waters.

Table 18: Size of Waters Assigned to Reporting Categories									
WATERBODY TYPE	CATEGORY							TOTAL IN STATE	TOTAL ASSESSED
	1	2	3	4a	4b	4c	5		
Rivers and Streams – miles	0	0	102.8	1,669.3	0	0	3,628.4	5,403.5 *	5,400.5**
Reservoirs – acres	0	0	0	0	0	0	7,323 ac	7,323 ac	7,323 ac
Estuaries – mi ²	0	0	0.4572	3.6652	0	0	1.2378	5.3602	5.3602
Coastal Waters- miles	71.10	0	33.62	0	0	0	441.91	546.63	546.63
Lagoons- mi ²	0	0	0.4688	0	0	0	3.8781	4.3469	4.3469
San Juan Bay Estuary- mi ² , miles	0	0	0	0	0	0	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi

Total miles of rivers, creek and streams assessed with monitoring station 3,256.3
 Total miles of rivers, creek and streams assessed without monitoring station 2,144.2
 5,400.5*

* The total miles do not include 18.8 miles that corresponds to PREE13A1 AU, since they are water classified as SB.
 ** Does is not included 3.0 miles that correspond to PRSR39A AU, since it had no flow for this evaluation cycle.

Description of Puerto Rico waters by designated uses, including the impairments from previous cycles

Table 19 to 40 include the information related with the description of the health of PR waters, including the impairments from previous cycles.

Table 19: Primary Contact Use Summary									
WATERBODY TYPE	CATEGORY							TOTAL IN STATE	TOTAL ASSESSED
	1	2	3	4a	4b	4c	5		
Rivers and Streams - miles	0	0	75.9	2,733.7	0	0	2,555.1	5,403.5	5,364.7
Reservoirs – acres	0	0	0	7,323	0	0	0	7,323	7,323
Estuaries – mi ²	0	0	0.2228	4.8410	0	0	0	5.3602	5.0638
Coastal Waters- miles	191.28	32.70	33.62	0	0	0	289.03	546.63	546.63
Lagoons- mi ²	0	0	3.2922	0.5297	0	0	0.5250	4.3469	4.3469

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Table 19: Primary Contact Use Summary

WATERBODY TYPE	CATEGORY							TOTAL IN STATE	TOTAL ASSESSED
	1	2	3	4a	4b	4c	5		
San Juan Bay Estuary- mi ² , miles	0	0	0	0	0	0	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi

Table 20: Secondary Contact Use Summary

WATERBODY TYPE	CATEGORY							TOTAL IN STATE	TOTAL ASSESSED
	1	2	3	4a	4b	4c	5		
Rivers and Streams - miles	0	0	75.9	2,733.7	0	0	2,555.1	5,403.5	5,364.7
Reservoirs – acres	0	0	0	7,323	0	0	0	7,323	7,323
Estuaries – mi ²	0	0	0.2228	4.8410	0	0	0	5.3602	5.0638
Coastal Waters- miles	191.28	32.70	33.62	0	0	0	289.03	546.63	546.63
Lagoons- mi ²	0	0	3.2922	0.5297	0	0	0.5250	4.3469	4.3469
San Juan Bay Estuary- mi ² , miles	0	0	0	0	0	0	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi

Table 21: Aquatic Life Use Summary

WATERBODY TYPE	CATEGORY							TOTAL IN STATE	TOTAL ASSESSED
	1	2	3	4a	4b	4c	5		
Rivers and Streams - miles	87.5	0	1,692.5	0	0	0	3,620.5	5,403.5	5,400.5
Reservoirs – acres	0	0	0	0	0	0	7,323	7,323	7,323
Estuaries – mi ²	0	0	4.1224	0	0	0	1.2378	5.3602	5.3602
Coastal Waters- miles	3.50	67.60	33.62	0	0	0	441.91	546.63	546.63
Lagoons- mi ²	0	0	0.4688	0	0	0	3.8781	4.3469	4.3469
San Juan Bay Estuary- mi ² , miles	0	0	0	0	0	0	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi

Table 22: Drinking Water Use Summary

WATERBODY TYPE	CATEGORY							TOTAL IN STATE	TOTAL ASSESSED
	1	2	3	4a	4b	4c	5		
Rivers and Streams - miles	151.0	0	2,305.4	0	0	0	2,944.1	5,403.5	5,400.5
Reservoirs – acres	0	0	0	0	0	0	7,323	7,323	7,323
San Juan Bay Estuary- mi ² , miles	0	0	0	0	0	0	0.1009	3.8340 mi ² , 18.8 mi	0.1009 mi ²

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Rivers, Streams and Creeks**

Table 23: Size of Waters Impaired by Causes (Monitored Miles for Rivers, Creek and Streams) *		
Causes of Impairments 2017-2019 Cycle		Causes of Impairments Summary
Causes of Impairments	Size of Waters Impaired* (miles)	Size of Waters Impaired (miles)
Ammonia	296.0	364.6
Arsenic	0	25.4
Cadmium	-	54.7
Chromium VI	2,555.1	2,555.1
Copper	472.8	1,192.8
Dissolved Oxygen	772.1	1,221.7
Enterococcus	2,493.1	2,555.1
Fecal Coliforms	0	57.8
Lead	210.6	525.9
Mercury	55.8	55.8
Oil and Grease	103.8	103.8
Pesticides	0	544.3
pH	776.6	805.1
Silver	0	14.6
Surfactants	180.5	313.4
Temperature	1,110.6	1,147.6
Total, Nitrogen	878.4	1,621.9
Total, Phosphorus	1,670.0	2,409.8
Turbidity	1,394.1	2,368.3

* It includes rivers, stream or creek miles that are part of the lakes, estuaries and San Juan Bay Estuary except 18.8 miles from PREE13A1 AU

Table 24: Size of Waters Impaired by Sources (Monitored and Unmonitored Rivers and Streams)		
Potential Sources of Pollution 2017-2019 Cycle		Potential Sources of Pollution Summary
Potential Sources of Pollution	Size of Water Impaired (miles)	Size of Water Impaired (miles)
Agriculture	2,716.3	2,716.3
Collection System Failure	3,238.8	3,257
Confined Animal Feeding Operations	3,876.5	3,895.3
Landfill	2,159.7	2,159.7
Major Industrial Point Sources	123.8	142.6
Major Municipal Point Sources	996.7	1,015.5
Minor Industrial Point Sources	2,376.1	2,427.6
Minor Municipal Point Sources	638.8	638.8
Onsite Wastewater Systems	5,322.6	5,011.7
Package Plants (Small Flows)	65.8	65.8
Surface Mining	615.8	615.8
Unknown Source	6.9	4.8

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Table 24: Size of Waters Impaired by Sources (Monitored and Unmonitored Rivers and Streams)		
Potential Sources of Pollution 2017-2019 Cycle		Potential Sources of Pollution Summary
Potential Sources of Pollution	Size of Water Impaired (miles)	Size of Water Impaired (miles)
Urban Runoff/Storm Sewers	3,253.5	3,034.7

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
QUEBRADA DE LOS CEDROS	QUEBRADA DE LOS CEDROS PRNQ1A	12.0	SD		4a	4a	3	3	H J L	Collection System Failure Onsite Wastewater Systems Urban Runoff/Storm Sewers	
QUEBRADA DEL TORO	QUEBRADA DEL TORO PRNQ2A	1.0	SD		3	3	3	3	H	Confined Animal Feeding Operations Onsite Wastewater systems	
RÍO GUAJATACA	RÍO GUAJATACA PRNR3A1	9.9	SD	NS 50011400	5	5	5	5		Collection System Failure Landfill Onsite Wastewater Systems	<i>Enterococcus</i> <i>Fecal Coliforms</i> <i>Total, Nitrogen</i> Chromium VI
	RÍO GUAJATACA PRNR3A2	22.0	SD	NS 50010600	5	5	5	5	F	Agriculture Collection System Failure Confined Animal Feeding Operations Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Total, Nitrogen</i> Chromium VI
	QUEBRADA LAS SEQUÍAS PRNQ3B	3.5	SD		4a	4a	5	5	D F H, L	Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Arsenic</i> <i>Dissolved Oxygen</i>
QUEBRADA BELLACA	QUEBRADA BELLACA PRNQ4A	1.7	SD		3	3	3	3	H	Confined Animal Feeding Operations Onsite Wastewater Systems	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)

Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO CAMUY	RÍO CAMUY PRNR5A	48.6	SD		4a	4a	3	3	F H	Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems	
QUEBRADA SECA	QUEBRADA SECA PRNQ6A	2.0	SD		3	3	3	3	H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems	
RÍO GRANDE DE ARECIBO	RÍO GRANDE DE ARECIBO PRNR7A1	22.4	SD	NS 50029000	5	5	5	5	K	Agriculture Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus Total, Phosphorus Turbidity</i> Chromium VI Temperature
	RÍO SANTIAGO PRNR7A1a	9.0	SD		4a	4a	3	3	H K	Onsite Wastewater Systems	
	RÍO GRANDE DE ARECIBO PRNR7A2	122.8	SD	NS 50025000	5	5	5	5	K	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Pesticides</i> <i>Turbidity</i> Chromium VI Temperature Total, Phosphorus

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)

Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	TÚNEL PRNR7A3	28.9	SD	NS 50020500	5	5	5	5	K	Agriculture Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Turbidity</i> Chromium VI
	RÍO CAONILLAS PRNR7C1	87.0	SD	NS 50026000	5	5	5	5	K	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Surface Mining Urban Runoff/Storm Sewers	<i>Enterococcus</i> Chromium VI Total, Nitrogen Total, Phosphorus <i>Turbidity</i>
	RÍO LIMÓN PRNR7C2	40.7	SD	NS 50026350	5	5	5	5	K	Agriculture Minor Industrial Point Sources Onsite Wastewater Systems	<i>Enterococcus</i> <i>Turbidity</i> Chromium VI Total, Nitrogen

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO YUNES PRNR7C3	32.7	SD	NS 50026950	5	5	5	5	K	Agriculture Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI Temperature Total, Nitrogen
	RÍO TANAMÁ PRNR7B1	16.2	SD		N/A	N/A	3	3	H K	Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems	
	RÍO TANAMÁ PRNR7B2	43.5	SD	NS 50028000	5	5	5	5	K	Agriculture Collection System Failure Onsite Wastewater Systems	<i>Copper</i> <i>Enterococcus</i> <i>Lead</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI
RÍO GRANDE DE MANATÍ	RÍO GRANDE DE MANATÍ PRNR8A1	31.0	SD	NS 50038100	5	5	5	5	K	Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO GRANDE DE MANATÍ PRNR8A2	38.1	SD	NS 50035500	5	5	5	5	K	Collection System Failure Confined Animal Feeding Operations Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Turbidity</i> Chromium VI Temperature
	RÍO GRANDE DE MANATÍ PRNR8A3	27.0	SD		4a	4a	3	3	H K	Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems	
	RÍO CIALITO PRNR8B	25.8	SD	NS 50035950	5	5	5	5	K	Agriculture Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>pH</i> <i>Turbidity</i> Chromium VI
	RÍO TORO NEGRO PRNR8C1	41.5	SD		4a	4a	3	3	H K	Agriculture Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO BAUTA PRNR8C2	27.6	SD		4a	4a	3	3	H K	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	
	RÍO SANA MUERTOS PRNR8D	16.0	SD		4a	4a	3	3	H K	Agriculture Collection System Failure Minor Industrial Point Sources Onsite Wastewater Systems	
	RÍO OROCOVIS PRNR8E1	19.8	SD	NS 50030700	5	5	5	5	K	Collection System Failure Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus Total, Phosphorus Turbidity</i> Chromium VI Total, Nitrogen
	RÍO BOTIJAS PRNR8E2	19.1	SD	SPD 50030300	4a	4a	5	3	D K	Confined Animal Feeding Operations Onsite Wastewater Systems	pH
RÍO CIBUCO	RÍO CIBUCO PRNR9A	31.1	SD	NS 50039500	5	5	5	5	A	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Onsite Wastewater Systems	<i>Copper Enterococcus Total, Nitrogen Total, Phosphorus Turbidity</i> Chromium VI

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)

Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO INDIO PRNR9B1	12.5	SD		4a	4a	3	3	A H	Collection System Failure Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO MOROVIS PRNR9B2	25.5	SD	SPD PR13001 PR13017	4a	4a	5	3	A D	Collection System Failure Confined Animal Feeding Operations Landfill Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i>
	RÍO UNIBÓN PRNR9B3	17.4	SD		4a	4a	3	3	A H	Collection System Failure Confined Animal Feeding Operations Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO MAVILLAS PRNR9C	34.0	SD		4a	4a	3	3	A H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO DE LOS NEGROS PRNR9D	24.1	SD		4a	4a	3	3	A H	Agriculture Collection System Failure Confined Animal Feeding Operations Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
RIO DE LA PLATA	RÍO DE LA PLATA PRER10A1	21.0	SD	NS 50046000	5	5	5	5	B	Collection System Failure Confined Animal Feeding Operations Major Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Surfaces Mining	<i>Dissolved Oxygen</i> <i>Enterococcus Total</i> , <i>Nitrogen Total</i> , <i>Phosphorus</i> <i>Turbidity</i> Chromium VI Temperature
	RÍO DE LA PLATA PRER10A2	14.3	SD		4a	4a	3	3	B H	Confined Animal Feeding Operations Onsite Wastewater Systems	
	RÍO DE LA PLATA PRER10A3	55.7	SD	NS 50044000	5	5	5	5	B	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Onsite Wastewater Systems	<i>Enterococcus Total</i> , <i>Nitrogen Total</i> , <i>Phosphorus</i> <i>Turbidity</i> Chromium VI pH

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO DE LA PLATA PRER10A4	10.2	SD	NS 50043000	5	5	5	5	B	Agriculture Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems	<i>Enterococcus Total, Nitrogen Total, Phosphorus Turbidity</i> Chromium VI pH Temperature
	RÍO DE LA PLATA PRER10A5	92.7	SD	NS 50042500	5	5	5	5	B	Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban/Runoff/Storm Sewers	<i>Enterococcus Total, Nitrogen Total, Phosphorus Turbidity</i> Chromium VI Copper Lead pH
	RÍO LAJAS PRER10B	16.6	SD		4a	4a	3	3	B H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Surface Mining	
	RÍO BUCARABONES PRER10C	19.2	SD		4a	4a	3	3	B H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO CAÑAS PRER10D	10.4	SD		4a	4a	3	3	B H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems	
	RÍO GUADIANA PRER10E	21.8	SD	NS 50044850	5	5	5	5	B	Collection System Failure Confined Animal Feeding Operations Minor Municipal Point Sources Onsite Wastewater Systems	<i>Enterococcus Total, Nitrogen Total, Phosphorus Turbidity Chromium VI</i>
	RÍO CUESTA ARRIBA PRER10F	10.6	SD	SPD PR1167	4a	4a	1	3	B D	Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems	<i>NONE</i>
	RÍO ARROYATA PRER10G	36.8	SD	NS 50043998	5	5	5	5	B	Agriculture Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen Enterococcus Total, Phosphorus Turbidity Chromium VI</i>
	RÍO HONDO PRER10H	25.6	SD		4a	4a	3	3	B H	Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO USABÓN PRER1011	54.6	SD		4a	4a	3	3	B H	Collection System Failure Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO AIBONITO PRER1012	18.7	SD		4a	4a	3	3	B H	Confined Animal Feeding Operations Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO MATÓN PRER10J	15.8	SD	NS 50042800	5	5	5	5	B	Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Enterococcus</i> Chromium VI pH Total, Nitrogen Total, Phosphorus
	RÍO GUAVATE PRER10K	19.8	SD	SPD PR1161	4a	4a	5	3	B D	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>pH</i>
RÍO HONDO	RÍO HONDO PRER11A	22.0	SD		4a	4a	5	3	D F, H	Collection System Failure Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Surfactants</i>

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)

Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO BAYAMÓN	RÍO BAYAMÓN PRER12A1	33.6	SD	NS 50048510	5	5	5	5	F	Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus Total, Phosphorus Turbidity</i> Ammonia Chromium VI pH Total Nitrogen
	RÍO BAYAMÓN PRER12A2	83.7	SD	NS 50047820	5	5	5	5	F	Collection System Failure Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus Total, Nitrogen Total, Phosphorus</i> Chromium VI
	RÍO GUAYNABO PRER12B	50.7	SD	NS 50047990	5	5	5	5	F	Collection System Failure Confined Animal Feeding Operations Landfill Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus Total, Nitrogen Total, Phosphorus Turbidity</i> Chromium VI Dissolved Oxygen
	RÍO MINILLAS PRER12C	8.7	SD		4a	4a	3	3	F H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)

Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO GRANDE DE LOIZA	RÍO GRANDE DE LOIZA PRER14A1	31.0	SD	NS 50059100	5	5	5	5	F	Collection System Failure Confined Animal Feeding Operations Major Industrial Point Sources Onsite Wastewater Systems Surfaces Mining Urban Runoff/Storm Sewers	<i>Enterococcus Total, Phosphorus Turbidity</i> Chromium VI
	RÍO GRANDE DE LOIZA PRER14A2	86.6	SD	NS 50055000	5	5	5	5	C E G	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Surfaces Mining Urban Runoff/Storm Sewers	<i>Enterococcus Lead Pesticides Total, Phosphorus Turbidity</i> Chromium VI Copper
	RÍO CANÓVANAS PRER14B	32.6	SD		4a	4a	5	3	D F H	Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i>
	RÍO CANOVANILLAS PRER14C	27.9	SD		4a	4a	5	3	D F H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i>

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	QUEBRADA MARACUTO PREQ14D	22.9	SD	SPD 50060200	4a	4a	1	3	D F	Confined Animal Feeding Operations Minor Municipal Point Sources Onsite Wastewater Systems	NONE
	QUEBRADA GRANDE PREQ14E	17.7	SD	SPD 50059210	4a	4a	1	3	F	Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	NONE
	RÍO CAÑAS PRER14F	9.4	SD	SPD 50058350	4a	4a	1	3	C	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems	NONE
	RÍO GURABO PRER14G1	124.3	SD	NS 50057025	5	5	5	5	C E	Collection System Failure Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Surfaces Mining	Copper Enterococcus Total, Nitrogen Total, Phosphorus Turbidity Chromium VI Temperature
	RÍO VALENCIANO PRER14G2	42.8	SD	NS 50056500	5	5	5	5	C	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	Enterococcus Total, Phosphorus Turbidity Ammonia Chromium VI pH Surfactants

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO BAIROA PRER14H	16.3	SD	NS 50055410	5	5	5	5	C E G I	Collection System Failure Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Surfactants</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> Chromium VI Dissolved Oxygen
	RÍO CAGÜITAS PRER14I	33.9	SD	NS 50055250	5	5	5	5	C E G I	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Surfaces Mining Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI Surfactants
	RÍO TURABO PRER14J	54.7	SD	NS 50054500	5	5	5	5	C	Agriculture Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Cadmium</i> <i>Copper</i> <i>Enterococcus</i> <i>Lead</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI Temperature
	RÍO CAYAGUAS PRER14K	38.5	SD	NS 50051500	5	5	5	5	C	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Copper</i> <i>Enterococcus</i> <i>Lead</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO EMAJAGUA PRER14L	8.5	SD		4a	4a	3	3	C H	Minor Industrial Point Sources Onsite Wastewater Systems	
RÍO HERRERA	RÍO HERRERA PRER15A	17.0	SD		4a	4a	5	5	D F H	Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Turbidity</i>
RÍO ESPÍRITU SANTO	RÍO ESPÍRITU SANTO PRER16A	53.9	SD	NS 50063800	5	5	5	5	F	Collection System Failure Confined Animal Feeding Operations Landfill Onsite Wastewater Systems	<i>Enterococcus</i> <i>Total, Nitrogen</i> Chromium VI
	RÍO ESPÍRITU SANTO PRER16A1	4.5	SD		4a	4a	3	3	F H	Confined Animal Feeding Operations Major Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems	
RÍO MAMEYES	RÍO MAMEYES PRER17A	35.6	SD		4a	4a	3	3	F H	Confined Animal Feeding Operations Landfill Onsite Wastewater Systems	
	RÍO MAMEYES PRER17A1	3.3	SD		4a	4a	3	3	F H	Onsite Wastewater Systems	
QUEBRADA MATA DE PLÁTANO	QUEBRADA MATA DE PLÁTANO PREQ18A	4.0	SD		4a	4a	5	3	D F H	Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Surfactants</i>

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO SÁBANA	RÍO SÁBANA PRER19A	15.1	SD	SPD 50069050	4a	4a	1	3	D J	Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Surfaces Mining	<i>NONE</i>
	RÍO SÁBANA PRER19A1	18.0	SD		4a	4a	3	3	D H J	Confined Animal Feeding Operations Onsite Wastewater Systems	
RÍO JUAN MARTÍN	RÍO JUAN MARTÍN PRER20A	7.8	SD		4a	4a	3	3	D H, J	Onsite Wastewater Systems	
QUEBRADA FAJARDO	QUEBRADA FAJARDO PREQ21A	10.0	SD	SPD 50069410	4a	4a	5	3	D J	Collection System Failure Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>pH</i> Temperature
RÍO FAJARDO	RÍO FAJARDO PRER22A	59.0	SD	NS 50072500	5	5	5	5	J	Confined Animal Feeding Operations Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI Temperature
RÍO DEMAJAGUA	RÍO DEMAJAGUA PRER23A	2.8	SD	SPD 50072700	4a	4a	5	3	D J	Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
QUEBRADA CEIBA	QUEBRADA CEIBA PREQ24A	5.0	SD		4a	4a	5	3	D H, J	Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Surfactants</i>

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
QUEBRADA AGUAS CLARAS	QUEBRADA AGUAS CLARAS PREQ25A	4.8	SD	SPD 50072900	4a	4a	5	3	D J	Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i>
RÍO DAGUAO	RÍO DAGUAO PRER26A	13.8	SD		4a	4a	5	3	D H J	Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
QUEBRADA PALMA	QUEBRADA PALMA PREQ27A	11.8	SD		4a	4a	3	3	H J	Confined Animal Feeding Operations Onsite Wastewater Systems	
QUEBRADA BOTIJAS	QUEBRADA BOTIJAS PREQ28A	7.4	SD	SPD 50073500	4a	4a	5	3	D J	Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
RÍO SANTIAGO	RÍO SANTIAGO PRER29A	12.7	SD		4a	4a	3	3	D H J	Collection System Failure Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO SANTIAGO PRER29A1	2.6	SD		4a	4a	3	3	H J	Confined Animal Feeding Operations Onsite Wastewater Systems	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO BLANCO	RÍO BLANCO PRER30A	45.0	SD	SPD 50077600	4a	4a	5	5	D J	Agriculture Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Turbidity</i>
	QUEBRADA PEÑA POBRE PREQ30B	13.4	SD	SPD 50076300	4a	4a	5	3	D J	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
RÍO ANTÓN RUIZ	RÍO ANTÓN RUIZ PRER31A	16.9	SD	SPD 50078510	4a	4a	5	3	D J	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen</i> Temperature
	QUEBRADA MULAS PREQ31A1	3.5	SD		4a	4a	3	3	H J	Confined Animal Feeding Operations Onsite Wastewater Systems	
QUEBRADA FRONTERA	QUEBRADA FRONTERA PREQ32A	8.5	SD	SPD 50078900	4a	4a	5	3	D J	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen</i>

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Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO HUMACAO	RÍO HUMACAO PRER33A	55.8	SD	NS 50082000	5	5	5	5	F	Collection System Failure Confined Animal Feeding Operations Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Lead</i> <i>Mercury</i> <i>Surfactants</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Ammonia Chromium VI pH Temperature
RÍO CANDELERO	RÍO CANDELERO PRER34A	10.4	SD	SPD 50082700	4a	4a	5	3	D F	Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
RÍO GUAYANÉS	RÍO GUAYANÉS PRER35A	62.0	SD	NS 50085000	5	5	5	5	F	Agriculture Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems	<i>Copper</i> <i>Enterococcus</i> <i>Lead</i> <i>pH</i> <i>Turbidity</i> Chromium VI Total, Phosphorus
	RÍO INGENIO PRER35A1	32.6	SD		4a	4a	3	3	F H	Confined Animal Feeding Operations Onsite Wastewater Systems	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)

Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
QUEBRADA EMAJAGUA	QUEBRADA EMAJAGUA PREQ36A	2.5	SD		4a	4a	3	3	H J	Onsite Wastewater Systems	
RÍO MAUNABO	RÍO MAUNABO PRER37A	36.0	SD	NS 50091000	5	5	5	5	F	Agriculture Collection System Failure Landfill Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus Total, Nitrogen Total, Phosphorus Chromium VI Temperature Turbidity</i>
QUEBRADA MANGLILLO	QUEBRADA MANGLILLO PRSQ38A	1.0	SD		4a	4a	3	3	H J	Onsite Wastewater Systems	
QUEBRADA FLORIDA	QUEBRADA FLORIDA PRSQ39A	3.0	SD		N/A	N/A	N/A	N/A	H L		
RÍO JACABOA	RÍO JACABOA PRSR40A	13.0	SD		4a	4a	3	3	H J L	Confined Animal Feeding Operations Onsite Wastewater Systems	
QUEBRADA PALENQUE	QUEBRADA PALENQUE PRSQ41A	1.0	SD		4a	4a	5	3	D, H J, L	Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
RÍO CHICO	RÍO CHICO PRSR42A	14.6	SD		4a	4a	5	5	D H J L	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Ammonia Copper Dissolved Oxygen Silver Surfactants Total, Phosphorus</i>

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)

Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO GRANDE DE PATILLAS	RÍO GRANDE DE PATILLAS PRSR43A1	4.0	SD		4a	4a	3	3	H J	Major Municipal Point Sources Onsite Wastewater Systems	
	RÍO GRANDE DE PATILLAS PRSR43A2	35.9	SD	NS 50092000	5	5	5	1	J	Onsite Wastewater Systems	<i>Enterococcus</i> Chromium VI pH
	RÍO MARÍN PRSR43B	8.7	SD		4a	4a	3	3	H J	Onsite Wastewater Systems	
QUEBRADA YAUREL	QUEBRADA YAUREL PRSQ44A	6.0	SD		4a	4a	3	3	H J, L	Onsite Wastewater Systems	
RÍO NIGUAS DE ARROYO	RÍO NIGUAS DE ARROYO PRSR45A	21.0	SD		4a	4a	3	3	D H J	Confined Animal Feeding Operations Onsite Wastewater Systems Package Plants (Small Flow) Urban Runoff/Storm Sewers	
QUEBRADA SALADA	QUEBRADA SALADA PRSQ46A	1.7	SD		4a	4a	3	3	H J, L	Onsite Wastewater Systems Surface Mining	
QUEBRADA CORAZÓN	QUEBRADA CORAZÓN PRSQ47A	9.7	SD		4a	4a	3	3	H J L	Confined Animal Feeding Operations Onsite Wastewater Systems	
QUEBRADA BRANDERI	QUEBRADA BRANDERI PRSQ48A	4.5	SD		4a	4a	3	3	H J, L	Collection System Failure Onsite Wastewater Systems	

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Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO GUAMANÍ	RÍO GUAMANÍ PRSR49A	22.0	SD		4a	4a	5	3	D H J L	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Temperature</i>
QUEBRADA MELANÍA	QUEBRADA MELANÍA PRSQ50A	7.0	SD	SPD 50096010	4a	4a	5	3	D J L	Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i>
RÍO SECO	RÍO SECO PRSR51A	24.7	SD		4a	4a	5	3	D, H J, L	Agriculture Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
QUEBRADA AMORÓS	QUEBRADA AMORÓS PRSQ52A	0.7	SD	SPD 50098600	4a	4a	5	3	D J L	Agriculture Collection System Failure Onsite Wastewater Systems	<i>Dissolved Oxygen</i> pH
QUEBRADA AGUAS VERDES	QUEBRADA AGUAS VERDES PRSQ53A	15.0	SD	SPD 50099400	4a	4a	5	3	D F L	Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
RÍO NIGUAS DE SALINAS	RÍO NIGUAS DE SALINAS PRSR54A	102.5	SD		4a	4a	5	3	D F H L	Confined Animal Feeding Operations Onsite Wastewater Systems Surfaces Mining Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i>

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO JUEYES	RÍO JUEYES PRSR55A	11.0	SD		4a	4a	3	3	H J L	Agriculture Confined Animal Feeding Operations Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	
RÍO CAYURES	RÍO CAYURES PRSR56A	5.0	SD		4a	4a	5	3	D, H J, L	Agriculture Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Surfactants</i>
RÍO COAMO	RÍO COAMO PRSR57A1	7.5	SD		4a	4a	3	3	H J L	Agriculture Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO COAMO PRSR57A2	59.0	SD	NS 50106500	5	5	5	5	J	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus Total</i> , <i>Nitrogen Total</i> , <i>Phosphorus</i> Chromium VI pH
	RÍO CUYÓN PRSR57B	49.2	SD	SPD 50106000	4a	4a	5	3	D J	Agriculture Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	Temperature

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)

Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO DESCALABRADO	RÍO DESCALABRADO PRSR58A	18.8	SD		4a	4a	3	3	D H J L	Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	
RÍO CAÑAS	RÍO CAÑAS PRSR59A	8.0	SD		4a	4a	3	3	H J, L	Agriculture Onsite Wastewater Systems	
RÍO JACAGUAS	RÍO JACAGUAS PRSR60A1	22.8	SD		4a	4a	3	3	F H L	Agriculture Collection System Failure Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO JACAGUAS PRSR60A2	29.3	SD		4a	4a	3	3	F H L	Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
RÍO INABÓN	RÍO INABÓN PRSR61A	66.7	SD		4a	4a	3	3	F H	Agriculture Collection System Failure Minor Industrial Point Sources Onsite Wastewater Systems Surface Mining Urban Runoff/Storm Sewers	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO BUCANÁ-CERRILLOS	RIO BUCANÁ-CERRILLOS PRSR62A1	27.8	SD	NS 50114400	5	5	5	5	J	Collection System Failure Onsite Wastewater Systems Surfaces Mining Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI Temperature
	RIO BUCANÁ-CERRILLOS PRSR62A2	32.6	SD	NS 50113800	5	5	5	5	J	Agriculture Minor Industrial Point Sources Onsite Wastewater Systems	<i>Enterococcus</i> Chromium VI pH Total, Phosphorus Turbidity
RIO PORTUGUÉS	RIO PORTUGUÉS PRSR63A	54.0	SD	NS 50114900 50116200	5	5	5	5	J	Collection System Failure Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Ammonia</i> <i>Enterococcus</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI Temperature Total, Nitrogen
RÍO MATILDE – PASTILLO	RÍO MATILDE-PASTILLO PRSR64A	43.2	SD	SPD 50119000	4a	4a	5	3	D J L	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	Temperature

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	QUEBRADA DEL AGUA PRSQ64A1	8.0	SD		4a	4a	3	3	H J, L	Onsite Wastewater Systems	
RÍO TALLABOA	RÍO TALLABOA PRSR65A	59.6	SD	SPD 50122050	4a	4a	5	1	D J L	Agriculture Collection System Failure Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	pH Temperature
RÍO MACANÁ	RÍO MACANÁ PRSR66A	21.7	SD		4a	4a	3	3	H J L	Agriculture Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
RÍO GUAYANILLA	RÍO GUAYANILLA PRSR67A	60.0	SD	NS 50124700	5	5	5	5	F	Agriculture Collection System Failure Landfill Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Ammonia</i> <i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> Chromium VI Temperature Turbidity
RÍO YAUCO	RÍO YAUCO PRSR68A1	61.4	SD		4a	4a	5	5	D F H L	Agriculture Collection System Failure Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Total, Phosphorus</i>

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO YAUCO PRSR68A2	18.3	SD		4a	4a	3	3	F H, L	Agriculture Onsite Wastewater Systems	
RÍO LOCO	RÍO LOCO PRSR69A1	92.4	SD	SPD 50129600	4a	4a	5	5	D F	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> Temperature Turbidity
	RÍO LOCO PRSR69A2	19.5	SD		4a	4a	3	3	F H	Agriculture Onsite Wastewater Systems	
RÍO ARROYO CAJUL	RÍO ARROYO CAJUL PRSR70A	7.4	SD		4a	4a	3	3	H J, L	Onsite Wastewater Systems	
QUEBRADA BOQUERÓN	QUEBRADA BOQUERÓN PRWQ71A	11.7	SD		4a	4a	3	3	H J	Minor Industrial Point Sources Onsite Wastewater Systems	
QUEBRADA ZUMBÓN	QUEBRADA ZUMBÓN PRWQ72A	1.7	SD		4a	4a	5	3	D, H J, L	Collection System Failure Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Surfactants</i>
QUEBRADA GONZÁLEZ	QUEBRADA GONZÁLEZ PRWQ73A	1.8	SD	SPD 50130100	4a	4a	5	3	D J, L	Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
QUEBRADA LOS PAJARITOS	QUEBRADA LOS PAJARITOS PRWQ74A	2.7	SD	SPD 50130150	4a	4a	5	3	D J L	Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
CAÑO CONDE ÁVILA	CAÑO CONDE ÁVILA PRWK75A	4.0	SD		4a	4a	3	3	H J	Onsite Wastewater Systems	

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)											
Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
QUEBRADA IRIZARRY	QUEBRADA IRIZARRY PRWQ76A	2.0	SD		4a	4a	3	3	H J	Onsite Wastewater Systems	
RIO GUANAJIBO	RIO GUANAJIBO PRWR77A	119.3	SD	NS 50138000	5	5	5	5	F	Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus Total, Phosphorus Turbidity</i> Chromium VI Dissolved Oxygen
	RIO HONDO PRWR77B	17.2	SD		4a	4a	3	3	F H	Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO ROSARIO PRWR77C	58.3	SD	NS 50136700	5	5	5	5	F	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus Pesticides</i> Chromium VI
	RÍO VIEJO PRWR77D	21.1	SD	NS 50135625	5	5	5	5	F	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen Enterococcus Total, Phosphorus Turbidity</i> Chromium VI

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Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO DUEY Y RÍO HOCONUCO PRWR77E	39.9	SD		4a	4a	3	3	F H	Agriculture Onsite Wastewater Systems	
	RÍO CAÍN PRWR77F	24.5	SD		4a	4a	3	3	F H	Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems	
	RÍO CUPEYES PRWR77G	8.0	SD		4a	4a	5	5	D F H	Agriculture Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Pesticides</i>
	RÍO CRUCES PRWR77H	13.8	SD		4a	4a	3	3	F H	Collection System Failure Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO GRANDE PRWR77I	22.5	SD		4a	4a	3	3	F H	Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
CAÑO MERLE	CAÑO MERLE PRWK78A	1.6	SD		4a	4a	5	3	D H J L	Collection System Failure Onsite Wastewater Systems Surface Mining Urban Runoff/Storm Sewers	<i>Dissolved Oxygen Surfactants</i>
	QUEBRADA SÁBALO PRWQ78A1	9.5	SD		4a	4a	3	3	H J, L	Onsite Wastewater Systems	

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Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO YAGÜEZ	RÍO YAGÜEZ PRWR79A	42.2	SD	NS 50139000	5	5	5	1	J	Agriculture Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Package Plants (Small Flow) Urban Runoff/Storm Sewers	<i>Enterococcus</i> Chromium VI
QUEBRADA DEL ORO	QUEBRADA DEL ORO PRWQ80A	10.0	SD		4a	4a	3	3	H J	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	
CAÑO MANÍ	CAÑO MANÍ PRWK81A	3.0	SD		3	3	3	3	H	Onsite Wastewater Systems	
CAÑO BOQUILLA	CAÑO BOQUILLA PRWK82A	5.4	SD		3	3	3	3	H L	Landfill Onsite Wastewater Systems	
	CAÑO BOQUILLA PRWK82A1	3.0	SD		3	3	3	3	H L	Onsite Wastewater Systems	
	CAÑO BOQUILLA PRWK82A2	3.9	SD		3	3	3	3	H L	Major Industrial Point Sources Onsite Wastewater Systems	

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					R1	R2	AL	DW			
RÍO GRANDE DE AÑASCO	RÍO GRANDE DE AÑASCO PRWR83A	126.0	SD	NS 50144000 50146000	5	5	5	5	K	Agriculture Collection System Failure Confined Animal Feeding Operations Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI
	RÍO CAÑAS PRWR83B	54.4	SD		4a	4a	3	3	H K	Agriculture Onsite Wastewater Systems	
	RÍO CASEY PRWR83C	38.1	SD		4a	4a	3	3	H K	Agriculture Onsite Wastewater Systems	
	RÍO HUMATA PRWR83D	13.3	SD	SPD 50144900	4a	4a	1	1	D K	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	<i>NONE</i>
	RÍO ARENAS PRWR83E	18.3	SD		4a	4a	3	3	H K	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
	RÍO MAYAGUECILLO PRWR83F	18.0	SD		4a	4a	3	3	H K	Agriculture Onsite Wastewater Systems	

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					R1	R2	AL	DW			
	RÍO GUABA PRWR83G	68.1	SD		4a	4a	3	3	H K	Agriculture Onsite Wastewater Systems	
	RÍO BLANCO PRWR83H	79.9	SD		4a	4a	3	3	H K	Agriculture Minor Industrial Point Sources Onsite Wastewater Systems	
	RÍO PRIETO PRWR83I	59.8	SD		4a	4a	5	5	D H K	Agriculture Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems	<i>Pesticides</i>
QUEBRADA JUSTO	QUEBRADA JUSTO PRWQ84A	1.0	SD		3	3	3	3	H L	Onsite Wastewater Systems	
QUEBRADA ICACOS	QUEBRADA ICACOS PRWQ85A	1.4	SD		3	3	3	3	H L	Onsite Wastewater Systems	
QUEBRADA CAGUABO	QUEBRADA CAGUABO PRWQ86A	1.0	SD		3	3	3	3	H L	Onsite Wastewater Systems	
CAÑO GARCÍA	CAÑO GARCÍA PRWK87A	2.0	SD		3	3	3	3	H L	Onsite Wastewater Systems	
QUEBRADA GRANDE DE CALVACHE	QUEBRADA GRANDE DE CALVACHE PRWQ88A	14.8	SD		3	3	3	3	D H L	Onsite Wastewater Systems	
QUEBRADA LOS RAMOS	QUEBRADA LOS RAMOS PRWQ89A	6.9	SD	SPD 50146155	3	3	5	3	D L	Confined Animal Feeding Operations Landfill Onsite Wastewater Systems	<i>Dissolved Oxygen</i>

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					R1	R2	AL	DW			
QUEBRADA PUNTA ENSENADA	QUEBRADA PUNTA ENSENADA PRWQ90A	5.0	SD		3	3	3	3	H L	Collection System Failure Onsite Wastewater Systems	
QUEBRADA PILETAS	QUEBRADA PILETAS PRWQ91A	2.0	SD		3	3	5	3	D H, L	Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
RÍO GRANDE	RÍO GRANDE PRWR92A	21.8	SD		3	3	3	3	H L	Onsite Wastewater Systems	
CAÑO DE SANTI PONCE	CAÑO DE SANTI PONCE PRWK93A	4.8	SD		4a	4a	3	3	H J, L	Collection System Failure Onsite Wastewater Systems	
RÍO GUAYABO	RÍO GUAYABO PRWR94A	43.1	SD		4a	4a	3	3	H J	Collection System Failure Onsite Wastewater Systems Urban Runoff/Storm Sewers	
RIO CULEBRINAS	RIO CULEBRINAS PRWR95A	142.6	SD	NS 50149100	5	5	5	5	K	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Pesticides</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI Copper
	RIO CAÑO (RÍO CAÑAS) PRWR95B	33.3	SD		4a	4a	3	3	H K	Onsite Wastewater Systems Urban Runoff/Storm Sewers	

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					R1	R2	AL	DW			
	QUEBRADA GRANDE (SECTOR CUCHILLAS) PRWQ95C	11.4	SD		4a	4a	3	3	H K	Agriculture Onsite Wastewater Systems	
	QUEBRADA LAS MARIAS PRWQ95D	9.8	SD		4a	4a	3	3	H K	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	
	QUEBRADA YAGRUMA PRWQ95E	20.6	SD		4a	4a	3	3	H K	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	
	QUEBRADA LA SALLE PRWQ95F	11.8	SD		4a	4a	5	5	D H K	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen Pesticides</i>
	QUEBRADA EL SALTO PRWQ95G	7.8	SD	SPD 50147630	4a	4a	5	3	D K	Agriculture Onsite Wastewater Systems	<i>Dissolved Oxygen</i>
	QUEBRADA GRANDE DE LA MAJAGUA PRWQ95H	5.6	SD		4a	4a	5	5	D H K	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Pesticides</i>
	QUEBRADA SALADA PRWQ95I	7.9	SD	SPD 50147475	4a	4a	1	3	D K	Confined Animal Feeding Operations Onsite Wastewater Systems	<i>NONE</i>

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Table 25: Rivers and Streams Assessment (Monitored and Unmonitored)

Basin	Waterbody Name (AU ID)	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
	RÍO SONADOR PRWR95J	37.7	SD		4a	4a	3	3	H K	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	
	RÍO GUATEMALA PRWR95K	20.3	SD		4a	4a	3	3	H K	Collection System Failure Confined Animal Feeding Operations Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	
CAÑO CORAZONES	CAÑO CORAZONES PRWK96A	1.3	SD		4a	4a	3	3	H J	Collection System Failure Onsite Wastewater Systems Urban Runoff/Storm Sewers	

Notes:

Bold and Red causes were listed into 2020 Cycle (New added causes).

Italicized and black causes were listed into and/or prior to 2020 Cycle. (Old causes)

- A** - Watershed that has an approved TMDL for Río Cibuco, the TMDL was approved on September 2002, the pollutant was Fecal Coliform.
- B** - Watershed that has an approved TMDL for Río de la Plata, the TMDL was approved on September 2003, the pollutant was Fecal Coliform.
- C** - Watershed that has an approved TMDL for Río Grande de Loíza, the TMDL was approved on September 2007, the pollutant was Fecal Coliform.
- D** - Watershed and subwatershed that do not have a permanent monitoring station but were included in prior cycles as part of the 303(d) List by a synoptic study or special monitoring project.
- E** - Watershed that has an approved TMDL for Río Grande de Loíza a TMDL was approved on August 2007, the pollutant was Dissolved Oxygen.
- F** - Watersheds that have approved TMDL on September 2012, the pollutant was Fecal Coliform.
- G** - Watershed that has an approved TMDL. Río Grande de Loíza, the TMDL was approved on August 2007, the pollutant was Copper.
- H** - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle.
- I** - Watershed that has approved TMDL from Río Grande de Loíza, a TMDL was approved on August 2007, the pollutant was Ammonia.
- J** - Watersheds that have approved TMDL on September 2011, the pollutant was Fecal Coliform.
- K** - Watersheds that have an approved TMDL on September 2010, the pollutant was Fecal Coliform. The watersheds are Río Grande de Arecibo, Río Grande de Manatí, Río Grande de Añasco, Río Culebrinas

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L – Watershed and subwatersheds, are waterbodies that lack adequate flow, which impaired some of the designated uses.

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life

DW - Raw Source for Drinking Water

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Estuaries

Table 26: Size of Waters Impaired by Causes (Monitored squares miles for Estuaries)		
Causes of Impairments 2017-2019 Cycle		Causes of Impairments Summary
Causes of Impairments	Size of Waters Impaired (mi²)	Size of Waters Impaired (mi²)
Arsenic	0	0.0364
Dissolved Oxygen	0	1.1210
Surfactants	0	1.0130
Temperature	0	0.0780
Turbidity	0	0.2932

Table 27: Size of Waters Impaired by Sources (Monitored and Unmonitored Estuaries)		
Potential Sources of Pollution 2017-2019 Cycle		Potential Sources of Pollution Summary
Potential Sources of Pollution	Size of Waters Impaired (mi²)	Size of Waters Impaired (mi²)
Agriculture	0.2635	0.2635
Collection System Failure	3.2261	3.2261
Confined Animal Feeding Operations	2.2829	2.2829
Landfill	0.9300	0.9300
Major Municipal Point Sources	1.2372	1.2372
Minor Industrial Point Sources	0.2232	0.2232
Onsite Wastewater Systems	4.3083	4.3083
Surface Mining	0.2298	0.2298
Upstream Impoundment	0.4596	0.4596
Urban Runoff/Storm Sewers	3.0678	3.0678

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Table 28: Estuaries Assessment (Except San Juan Estuary System)											
Basin	Waterbody Name (AU ID)	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO GUAJATACA PRNR3A	RÍO GUAJATACA PRNE3A	0.048	SB		3	3	3	N/A	H	Onsite Wastewater Systems Surface Mining Urban Runoff/Storm Sewers	
QUEBRADA BELLACA PRNQ4A	QUEBRADA BELLACA PRNE4A	0.0042	SB		3	3	3	N/A	H	Onsite Wastewater Systems	
RÍO CAMUY PRNR5A	RÍO CAMUY PRNE5A	0.042	SB		4a	4a	3	N/A	F H	Onsite Wastewater Systems	
RÍO GRANDE DE ARECIBO PRNR7A	RÍO GRANDE DE ARECIBO PRNE7A	0.0847	SB		4a	4a	3	N/A	H K	Agriculture Urban Runoff/Storm Sewers	
CAÑO TIBURONES PRNE7.1	CAÑO TIBURONES PRNE7.1	0.2924	SB		4a	4a	3	N/A	H J	Confined Animal Feeding Operations Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	
RÍO GRANDE DE MANATÍ PRNR8A	RÍO GRANDE DE MANATÍ PRNE8A	0.2576	SB		4a	4a	3	N/A	H K	Urban Runoff/Storm Sewers	
RÍO CIBUCO PRNR9A	RÍO CIBUCO PRNE9A	0.2964	SB		N/A	N/A	3	N/A	A H	Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	

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Table 28: Estuaries Assessment (Except San Juan Estuary System)											
Basin	Waterbody Name (AU ID)	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO DE LA PLATA PRER10A	RÍO DE LA PLATA PREE10A	0.8256	SB		4a	4a	3	N/A	B H	Collection System Failure Confined Animal Feeding Operations Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
RÍO GRANDE DE LOIZA PRER14A	RÍO GRANDE DE LOIZA PREE14A	0.8685	SB		4a	4a	3	N/A	F H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	
RÍO HERRERA PRER15A	RÍO HERRERA PREE15A	0.102	SB		4a	4a	5	N/A	D F, H	Landfill Onsite Wastewater Systems	<i>Surfactants</i>
RÍO ESPÍRITU SANTO PRER16A	RÍO ESPÍRITU SANTO PREE16A	0.5758	SB		4a	4a	5	N/A	D F H	Collection System Failure Onsite Wastewater Systems	<i>Dissolved Oxygen Surfactants</i>
CAÑO RODRÍGUEZ PREK16.1	CAÑO RODRÍGUEZ PREE16.1	0.108	SB		3	3	3	N/A	H	Minor Industrial Point Sources Onsite Wastewater Systems	
RÍO MAMEYES PRER17A	RÍO MAMEYES PREE17A	0.1674	SB		4a	4a	3	N/A	F H	Onsite Wastewater Systems Surface Mining	
RÍO SABANA PRER19A	RÍO SABANA PREE19A	0.0288 mi ²	SB		4a	4a	3	N/A	H J	Urban Runoff/Storm Sewers	
RÍO JUAN MARTÍN PRER20A	RÍO JUAN MARTÍN PREE20A	0.0028	SB		4a	4a	3	N/A	H J	Urban Runoff/Storm Sewers	
RÍO FAJARDO PRER22A	RÍO FAJARDO PREE22A	0.068	SB		4a	4a	3	N/A	H J	Collection System Failure Urban Runoff/Storm Sewers	

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Table 28: Estuaries Assessment (Except San Juan Estuary System)											
Basin	Waterbody Name (AU ID)	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RÍO DEMAJAGUA PRER23A	RÍO DEMAJAGUA PREE23A	0.0028	SB		4a	4a	5	N/A	D H, J	Collection System Failure Urban Runoff/Storm Sewers	<i>Turbidity</i>
QUEBRADA AGUAS CLARAS PREQ25A	QUEBRADA AGUAS CLARAS PREE25A	0.0024	SB		4a	4a	3	N/A	H J	Upstream Impoundment	
RÍO DAGUAO PRER26A	RÍO DAGUAO PREE26A	0.0672	SB		4a	4a	3	N/A	H J	Upstream Impoundment	
QUEBRADA PALMA PREQ27A	QUEBRADA PALMA PREE27A	0.005	SB		4a	4a	3	N/A	H J	Upstream Impoundment	
QUEBRADA BOTIJAS PREQ28A	QUEBRADA BOTIJAS PREE28A	0.0192	SB		4a	4a	3	N/A	H J	Upstream Impoundment	
RÍO SANTIAGO PRER29A	RÍO SANTIAGO PREE29A	0.0252	SB		4a	4a	3	N/A	H J	Onsite Wastewater Systems	
RÍO BLANCO PRER30A	RÍO BLANCO PREE30A	0.0512	SB		4a	4a	3	N/A	H J	Upstream Impoundment	
RÍO ANTON RUIZ PRER31A	RÍO ANTÓN RUIZ PREE31A	0.1296	SB		4a	4a	3	N/A	H J	Upstream Impoundment	
RÍO HUMACAO PRER33A	RÍO HUMACAO PREE33A	0.124	SB		4a	4a	3	N/A	F H	Collection System Failure Landfill Onsite Wastewater Systems	
RÍO CANDELERO PRER34A	RÍO CANDELERO PREE34A	0.078	SB		4a	4a	5	N/A	D F, H	Collection System Failure	<i>Dissolved Oxygen Temperature</i>
RÍO GUAYANÉS PRER35A	RÍO GUAYANÉS PREE35A	0.0364	SB		4a	4a	5	N/A	F H	Agriculture Collection System Failure Onsite Wastewater Systems	<i>Arsenic Turbidity</i>

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Table 28: Estuaries Assessment (Except San Juan Estuary System)											
Basin	Waterbody Name (AU ID)	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
CAÑO SANTIAGO PREK35.1	CAÑO SANTIAGO PREE35.1	0.1152	SB		4a	4a	5	N/A	D F H	Agriculture Collection System Failure Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Surfactants</i> <i>Turbidity</i>
RÍO CHICO PRSR42A	RÍO CHICO PRSE42A	0.008	SB		4a	4a	3	N/A	H J, L	Onsite Wastewater Systems	
RÍO GRANDE DE PATILLAS PRSR43A	RÍO GRANDE DE PATILLAS PRSE43A	0.0136	SB		4a	4a	3	N/A	H J	Upstream Impoundment Urban Runoff/Storm Sewers	
QUEBRADA SALADA PRSQ46A	QUEBRADA SALADA PRSE46A	0.006	SB		4a	4a	3	N/A	H J L	Onsite Wastewater Systems Surface Mining	
QUEBRADA CORAZÓN PRSQ47A	QUEBRADA CORAZÓN PRSE47A	0.0054	SB		4a	4a	3	N/A	H J L	Onsite Wastewater Systems	
QUEBRADA BRANDERI PRSQ48A	QUEBRADA BRANDERI PRSE48A	0.012	SB		4a	4a	3	N/A	H J L	Onsite Wastewater Systems	
QUEBRADA MELANÍA PRSQ50A	QUEBRADA MELANÍA PRSE50A	0.012	SB		4a	4a	3	N/A	H J L	Onsite Wastewater Systems	
RÍO SECO PRSR51A	RÍO SECO PRSE51A	0.0036	SB		4a	4a	3	N/A	H J, L	Urban Runoff/Storm Sewers	
QUEBRADA AMORÓS PRSQ52A	QUEBRADA AMORÓS PRSE52A	0.0042	SB		4a	4a	3	N/A	H J L	Urban Runoff/Storm Sewers	

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Table 28: Estuaries Assessment (Except San Juan Estuary System)											
Basin	Waterbody Name (AU ID)	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
QUEBRADA AGUAS VERDES PRSQ53A	QUEBRADA AGUAS VERDES PRSE53A	0.0036	SB		4a	4a	3	N/A	F H L	Upstream Impoundment Urban Runoff/Storm Sewers	
RÍO NIGUAS DE SALINAS PRSR54A	RÍO NIGUAS DE SALINAS PRSE54A	0.011	SB		4a	4a	3	N/A	F H L	Onsite Wastewater Systems Upstream Impoundment	
RÍO COAMO PRSR57A	RÍO COAMO PRSE57A	0.0114	SB		4a	4a	3	N/A	H J, L	Agriculture Upstream Impoundment	
RÍO DESCALABRADO PRSR58A	RÍO DESCALABRADO PRSE58A	0.0048	SB		4a	4a	3	N/A	H J	Agriculture	
RÍO JACAGUAS PRSR60A	RÍO JACAGUAS PRSE60A	0.011	SB		4a	4a	3	N/A	F H, L	Agriculture Onsite Wastewater Systems	
RÍO INABÓN PRSR61A	RÍO INABÓN PRSE61A	0.0036	SB		4a	4a	3	N/A	F H	Urban Runoff/Storm Sewers	
RÍO MATILDE-PASTILLO PRSR64A	RÍO MATILDE-PASTILLO PRSE64A	0.0432	SB		4a	4a	5	N/A	D H J, L	Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Turbidity</i>
RÍO TALLABOA PRSR65A	RÍO TALLABOA PRSE65A	0.0336	SB		4a	4a	5	N/A	D, H J, L	Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Turbidity</i>
RÍO MACANÁ PRSR66A	RÍO MACANÁ PRSE66A	0.0036	SB		4a	4a	3	N/A	H J, L	Urban Runoff/Storm Sewers	
RÍO YAUCO PRSR68A	RÍO YAUCO PRSE68A	0.003	SB		4a	4a	3	N/A	F H, L	Upstream Impoundment	
RÍO LOCO PRSR69A	RÍO LOCO PRSE69A	0.0084	SB		4a	4a	3	N/A	F H	Onsite Wastewater Systems Surface Mining Urban Runoff/Storm Sewers	

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Table 28: Estuaries Assessment (Except San Juan Estuary System)											
Basin	Waterbody Name (AU ID)	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
QUEBRADA BOQUERÓN PRWQ71A	QUEBRADA BOQUERÓN PRWE71A	0.0096	SB		4a	4a	3	N/A	H J	Urban Runoff/Storm Sewers	
QUEBRADA ZUMBÓN PRWQ72A	QUEBRADA ZUMBÓN PRWE72A	0.003	SB		4a	4a	3	N/A	H J L	Onsite Wastewater Systems	
QUEBRADA GONZÁLEZ PRWQ73A	QUEBRADA GONZÁLEZ PRWE73A	0.008	SB		4a	4a	3	N/A	H J L	Upstream Impoundment	
QUEBRADA LOS PAJARITOS PRWQ74A	QUEBRADA LOS PAJARITOS PRWE74A	0.003	SB		4a	4a	3	N/A	H J L		
RIO GUANAJIBO PRWR77A	RIO GUANAJIBO PRWE77A	0.0576	SB		4a	4a	3	N/A	H J	Collection System Failure Onsite Wastewater Systems	
CAÑO MERLE PRWK78A	CAÑO MERLE PRWE78A	0.158	SB		4a	4a	5	N/A	D, H J, L	Collection System Failure	<i>Surfactants</i>
RIO YAGÜEZ PRWR79A	RIO YAGÜEZ PRWE79A	0.0192	SB		4a	4a	3	N/A	H J	Collection System Failure Urban Runoff/Storm Sewers	
CAÑO BOQUILLA PRWK82A	CAÑO BOQUILLA PRWE82A	0.062	SB		3	3	5	N/A	D H L	Onsite Wastewater Systems	<i>Dissolved Oxygen Surfactants Turbidity</i>
RÍO GRANDE DE AÑASCO PRWR83A	RÍO GRANDE DE AÑASCO PRWE83A	0.2376	SB		4a	4a	3	N/A	H K	Onsite Wastewater Systems	
QUEBRADA GRANDE CALVACHE PRWQ88A	QUEBRADA GRANDE CALVACHE PRWE88A	0.002	SB		4a	4a	5	N/A	D H L O	Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i>

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Table 28: Estuaries Assessment (Except San Juan Estuary System)											
Basin	Waterbody Name (AU ID)	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
QUEBRADA LOS RAMOS PRWQ89A	QUEBRADA LOS RAMOS PRWE89A	0.0006	SB		3	3	3	N/A	H L	Collection System Failure	
RÍO GRANDE PRWR92A	RÍO GRANDE PRWE92A	0.0028	SB		4a	4a	3	N/A	H J, L		
CAÑO DE SANTI PONCE PRWK93A	CAÑO DE SANTI PONCE PRWE93A	0.0032	SB		4a	4a	3	N/A	H J L	Onsite Wastewater Systems	
RÍO GUAYABO PRWR94A	RÍO GUAYABO PRWE94A	0.0288	SB		4a	4a	5	N/A	D H, J	Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i>
RÍO CULEBRINAS PRWR95A	RÍO CULEBRINAS PRWE95A	0.1344	SB		4a	4a	3	N/A	H K	Onsite Wastewater Systems Upstream Impoundment	

Notes:

Bold and Red causes were listed into 2020 Cycle (New added causes).

Italicized and black causes were listed into and/or prior to 2020 Cycle. (Old causes)

A - Watershed that has an approved TMDL for Río Cibuco, the TMDL was approved on September 2002, the pollutant was Fecal Coliform.

B - Watershed that has an approved TMDL for Río de la Plata, the TMDL was approved on September 2003, the pollutant was Fecal Coliform.

D - Watershed and subwatershed that do not have a permanent monitoring station but were included in prior cycles as part of the 303(d) List by a synoptic study or special monitoring project.

F - Watersheds that have approved TMDL on September 2012, the pollutant was Fecal Coliform.

H - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle

J - Watersheds that have approved TMDL on September 2011, the pollutant was Fecal Coliform

K - Watersheds that have an approved TMDL on September 2010, the pollutant was Fecal Coliform. The watersheds are Río Grande de Arecibo, Río Grande de Manatí, Río Grande de Añasco, Río Culebrinas.

L – Watershed and subwatersheds, are waterbodies that lack adequate flow, which impaired some of the designated uses.

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life

DW - Raw Source for Drinking Water

N/A - Not applicable

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San Juan Bay Estuary System

Table 29: Size of Waters Impaired by Causes San Juan Bay Estuary System

Causes of Impairments 2017-2019 Cycle		Causes of Impairments Summary
Causes of Impairments	Size of Waters Impaired (mi ² , miles)	Size of Waters Impaired (mi ² , miles)
Ammonia	3.8340 mi ²	3.8340 mi ²
Arsenic	0	18.8 mi
Chromium VI	3.8340 mi ²	3.8340 mi ²
Copper	0.1009 mi ² .	0.1009 mi ² , 18.8 mi
Dissolved Oxygen	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi
Enterococcus	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi
Fecal Coliforms	0	3.7331 mi ²
Lead	0.1009 mi ²	0.1009 mi ² , 18.8 mi
Mercury	0	18.8 mi
Oil and Grease	3.8340 mi ²	3.8340 mi ² , 18.8 mi
pH	3.7331 mi ² , 18.8 mi	3.7331 mi ² , 18.8 mi
Selenium	0	18.8 mi
Surfactants	3.8340 mi ²	3.8340 mi ² , 18.8 mi
Temperature	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi
Total, Nitrogen	3.8340 mi ²	3.8340 mi ² ,
Total, Phosphorus	3.8340 mi ²	3.8340 mi ² , 18.8 mi
Turbidity	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi

Table 30: Size of Waters Impaired by Sources San Juan Bay Estuary System

Potential Sources of Pollution 2017-2019 Cycle		Potential Sources of Pollution Summary
Potential Sources of Pollution	Size of Waters Impaired (mi ² , miles)	Size of Waters Impaired (mi ² , miles)
Collection System Failure	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi
Confined Animal Feeding Operations	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi
Landfill	0.1009 mi ²	0.1009 mi ²
Major Industrial Point Sources	18.8 mi	18.8 mi
Marinas and Recreational Boating	18.8 mi	18.8 mi
Minor Industrial Point Sources	18.8 mi	18.8 mi
Major Municipal Point Source	18.8 mi	18.8 mi
Onsite Wastewater Systems	3.7331 mi ² , 18.8 mi	3.7331 mi ² , 18.8 mi
Urban Runoff/Storm Sewers	3.8340 mi ² , 18.8 mi	3.8340 mi ² , 18.8 mi

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Table 31: San Juan Bay Estuary System Assessment

Basin	Waterbody Name (AU ID)	Waterbody Size (mi ² , miles)	2020 Monitoring Stations NS = Network ED = External Data	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL	DW			
ESTUARY SYSTEM	PREE13A1 Caño Control de La Malaria Bahía de San Juan Caño San Antonio Laguna Del Condado Península La Esperanza	18.8 miles	NS ED – BSJ 1, 2, 3 LC 1, 2 CSA La Malaria PLE	5	5	5	N/A	F M	Collection System Failure Confined Animal Feeding Operations Major Industrial Point Sources Major Municipal Point Sources Marinas and Recreational Boating Minor Industrial Point Sources Onsite Wastewater System Urban Runoff/Storm Sewers	<i>Arsenic</i> <i>Copper</i> <i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Lead</i> <i>Mercury</i> <i>Oil & Grease</i> <i>pH</i> <i>Selenium</i> <i>Surfactants</i> <i>Temperature</i> <i>Total, Phosphorus</i> <i>Turbidity</i>
ESTUARY SYSTEM	PREE13A2 Río Piedras Lago Las Curías	0.1009 mi ²	NS 89027 50049100 ED – RP 01, 02, 03 RPN Lago Las Curías	5	5	5	5	F M	Collection System Failure Confined Animal Feeding Operations Landfill Urban Runoff/Storm Sewers	<i>Ammonia</i> <i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Oil & Grease</i> <i>Temperature</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI Copper Lead Surfactants

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Table 31: San Juan Bay Estuary System Assessment

Basin	Waterbody Name (AU ID)	Waterbody Size (mi ² , miles)	2020 Monitoring Stations NS = Network ED = External Data	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL	DW			
ESTUARY SYSTEM	PREE13A3 Caño Martín Peña Quebrada Juan Méndez Quebrada San Antón Quebrada Blasina Canal Machicote Canal Suárez Laguna San José Laguna Torrecillas Laguna de Piñones Laguna Los Corozos	3.7331 mi ²	NS 50050300 ED – CS 1, 2 CMP LSJ 1, 2 Blasina San Antón Laguna Los Corozos Laguna Torrecilla 1, 2, 3	5	5	5	N/A	M	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater System Urban Runoff/Storm Sewers	<i>Ammonia</i> <i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Fecal Coliforms</i> <i>Oil & Grease</i> <i>pH</i> <i>Surfactants</i> <i>Temperature</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Chromium VI

Notes:

Bold and Red causes were listed into 2020 Cycle (New added causes).

Italicized and black causes were listed into and/or prior to 2020 Cycle. (Old causes)

F - Watersheds that have approved TMDL on September 2012, the pollutant was Fecal Coliform.

M - External Data

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life

DW - Raw Source for Drinking Water

N/A - Not applicable

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Lagoons

Table 32: Size of Waters Impaired by Causes (Monitored acres for Lagoons)		
Causes of Impairments 2017-2019 Cycle		Causes of Impairments Summary
Causes of Impairments	Size of Waters Impaired (mi²)	Size of Waters Impaired (mi²)
Copper	0	2.6172
Dissolved Oxygen	0	3.8781
Enterococcus	0	0.5250
pH	0	1.2703
Temperature	0	0.4016
Turbidity	0	1.4344

Table 33: Size of Waters Impaired by Sources (Monitored and Unmonitored Acres for Lagoons)		
Potential Sources of Pollution 2017-2019 Cycle		Potential Sources of Pollution Summary
Potential Sources of Pollution	Size of Waters Impaired (mi²)	Size of Waters Impaired (mi²)
Landfill	0.0219	0.0219
Marinas and Recreational Boating	0.6234	0.6234
Minor Industrial Point Sources	0.2859	0.2859
Onsite Wastewater Systems	2.3125	2.3125
Unknown Source	2.6516	2.3657
Urban Runoff/Storm Sewers	2.6328	2.6328

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Table 34: Lagoons Assessment (Monitored and Unmonitored)

Municipality	Waterbody Name (AU ID)	Class	2020 Monitoring Stations	WB Size (mi ²)	Overall Designated Uses and Categories			Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL			
					MAYAGÜEZ	Laguna Joyudas PRWN0005	SB			
VEGA BAJA- MANATÍ	Laguna Tortuguero PRNN0006	SE		0.8656	3	3	5	H	Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i>
DORADO	Laguna Mata Redonda PRNN0007	SB		0.0234	3	3	5	H	Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>pH</i>
FAJARDO	Laguna Aguas Prietas PREN0011	SB		0.2	3	3	5	H	Unknown Sources	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Turbidity</i>
FAJARDO	Laguna Grande PREN0012	SB		0.3375	5	5	5	H	Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>pH</i>
CEIBA	Laguna Ceiba PREN0013	SB		0.1875	5	5	5	H	Unknown Source	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>pH</i>
GUAYAMA	Laguna Pozuelo PRSN0014	SB		0.0547	3	3	5	H	Unknown Source Urban Runoff/Storm Sewers	<i>Copper</i> <i>Dissolved Oxygen</i> <i>pH</i> <i>Temperature</i>
SALINAS	Laguna Mar Negro PRSN0015	SB		0.325	3	3	5	H	Urban Runoff/Storm Sewers Unknown Source	<i>Copper</i> <i>Dissolved Oxygen</i> <i>pH</i>

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Table 34: Lagoons Assessment (Monitored and Unmonitored)

Municipality	Waterbody Name (AU ID)	Class	2020 Monitoring Stations	WB Size (mi ²)	Overall Designated Uses and Categories			Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL			
SALINAS	Laguna Punta Arenas PRSN0016	SB		0.0281	3	3	5	H	Unknown Source Urban Runoff/Storm Sewers	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Temperature</i> <i>Turbidity</i>
SALINAS	Laguna Tiburones PRSN0017	SB		0.0219	3	3	5	H	Landfill Unknown Source	<i>Copper</i> <i>Dissolved Oxygen</i> <i>pH</i> <i>Temperature</i> <i>Turbidity</i>
PONCE	Laguna Salinas PRSN0018	SB		0.1203	3	3	5	H	Onsite Wastewater Systems Unknown Source	<i>Copper</i> <i>Dissolved Oxygen</i>
CABO ROJO	Laguna Salinas I (Fraternidad) PRSN0019	SB		0.4594	3	3	5	H	Onsite Wastewater Systems Unknown Source	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Turbidity</i>
CABO ROJO	Laguna Cabo Rojo 2 (Candelaria) PRSN0020	SB		0.2969	3	3	5	H	Unknown Source	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Temperature</i> <i>Turbidity</i>
CABO ROJO	Laguna Cabo Rojo 3 (El Faro) PRSN0021	SB		0.1078	3	3	5	H	Unknown Source	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Turbidity</i>
CABO ROJO	Caño Boquerón PRSN0022	SB		0.2859	3	3	5	H	Marinas and Recreational Boating Minor Industrial Point Sources Unknown Sources	<i>Copper</i> <i>Dissolved Oxygen</i> <i>pH</i> <i>Turbidity</i>
CABO ROJO	Laguna Guaniquilla PRSN0023	SB		0.0344	3	3	5	H	Unknown Source	<i>Dissolved Oxygen</i> <i>pH</i> <i>Turbidity</i>

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Table 34: Lagoons Assessment (Monitored and Unmonitored)

Municipality	Waterbody Name (AU ID)	Class	2020 Monitoring Stations	WB Size (mi ²)	Overall Designated Uses and Categories			Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL			
					LAJAS	Laguna Cartagena PRSN0024	SE			

Notes:

Bold and Red causes were listed into 2020 Cycle (New added causes).

Italicized and black causes were listed into and/or prior to 2020 Cycle. (Old causes)

H - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle.

J - Watersheds that have approved TMDL on September 2011, the pollutant was Fecal Coliform.

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life

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Lakes

Table 35: Size of waters Impaired by Causes (Monitored Acres for Lakes)		
Causes of Impairments 2017-2019 Cycle		Causes of Impairments Summary
Causes of Impairments	Size of Waters Impaired (acres)	Size of Waters Impaired (acres)
Arsenic	0	1,194
Copper	1,866	2,500
Dissolved Oxygen	7,234	7,288
Enterococcus	35	35
Lead	1,013	1,726
Mercury	35	35
Pesticides	0	2,133
pH	6,089	6,266
Surfactants	0	634
Temperature	3,254	3,254
Total, Nitrogen	6,439	6,516
Total, Phosphorus	7,161	7,269
Turbidity	1,898	2,458

Table 36: Size of waters Impaired by Sources (Monitored Acres for Lakes)		
Potential Sources of Pollution 2017-2019 Cycle		Potential Sources of Pollution Summary
Potential Sources of Pollution	Size of Waters Impaired (acres)	Size of Waters Impaired (acres)
Agriculture	3,680	3,680
Collection System Failure	1,914	1,914
Confined Animal Feeding Operations	3,870	3,870
Landfill	560	560
Major Industrial Point Sources	285	285
Minor Industrial Point Sources	2,352	2,352
Minor Municipal Point Sources	285	285
Onsite Wastewater Systems	6,623	6,623
Package Plant (Small Flows)	0	1,000
Unknown Sources	634	2,866
Urban Runoff/Storm Sewers	1,413	1,413

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Table 37: Lakes Assessment

Basin	Waterbody Name (AU ID)	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RIO GUAJATACA	LAGO GUAJATACA PRNL3A1	1000	SD	NS 10720 10790 10790C	4a	4a	5	5	F	Confined Animal Feeding Operations Minor industrial Point Sources Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>pH</i> <i>Total, Phosphorus</i> Temperature Total, Nitrogen
RIO GRANDE DE ARECIBO	LAGO DOS BOCAS PRNL17A1	634	SD	NS 25110 27090 27090E	4a	4a	5	5	K N	Agriculture Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Unknown Sources (9000)	<i>Arsenic</i> <i>Copper</i> <i>Dissolved Oxygen</i> <i>pH</i> <i>Surfactants</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> Temperature Turbidity
RIO GRANDE DE ARECIBO	LAGO CAONILLAS PRNL27C1	700	SD	NS 89001 89002 89003	4a	4a	5	5	K	Agriculture Onsite Wastewater Systems	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Pesticides</i> <i>Total, Phosphorus</i> pH Total, Nitrogen
RIO GRANDE DE ARECIBO	LAGO GARZAS PRNL37A3	108	SD	NS 20050	4a	4a	5	5	K	Agriculture Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Pesticides</i> <i>pH</i> <i>Total, Phosphorus</i> Copper Lead

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Table 37: Lakes Assessment

Basin	Waterbody Name (AU ID)	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RIO GRANDE DE MANATÍ	LAGO GUINEO PRNL ₁ 8C1	54	SD		4a	4a	5	5	H K	Agriculture Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Pesticides</i>
RIO GRANDE DE MANATÍ	LAGO MATRULLAS PRNL ₂ 8C1	77	SD	NS 89009 89010	4a	4a	5	5	K	Agriculture Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>pH</i> <i>Total, Phosphorus</i> Copper Lead Total, Nitrogen
RIO DE LA PLATA	LAGO DE LA PLATA PREL ₁ 10A1	560	SD	NS 44400 44950 44950C	4a	4a	5	5	B N	Collection System Failure Confined Animal Feeding Operations Landfill Onsite Wastewater Systems	<i>Arsenic</i> <i>Dissolved Oxygen</i> <i>pH</i> <i>Total, Phosphorus</i> <i>Turbidity</i> Lead Temperature Total, Nitrogen
RIO DE LA PLATA	LAGO CARITE PREL ₂ 10A5	333	SD	NS 39900 39950 39950C	4a	4a	5	5	B	Confined Animal Feeding Operations Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Total, Phosphorus</i> pH
RIO BAYAMON	LAGO CIDRA PREL12A2	268	SD	NS 89029 89030 89031	4a	4a	5	5	F	Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Total, Phosphorus</i> Copper Lead Total, Nitrogen

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Table 37: Lakes Assessment

Basin	Waterbody Name (AU ID)	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RIO GRANDE DE LOIZA	LAGO LOIZA PREL14A1	713	SD	NS 57500 58800 58800D	4a	4a	5	5	C	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Lead</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> <i>Turbidity</i> pH Temperature
RIO GRANDE DE PATILLAS	LAGO PATILLAS PRSL43A1	312	SD	NS 89022 89023 89024	4a	4a	5	5	J	Agriculture Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Pesticides</i> <i>Total, Phosphorus</i> pH Temperature
QUEBRADA MELANIA	LAGO MELANIA PRSL50A	35	SD	NS 89026	4a	4a	5	5	J	Agriculture Onsite Wastewater Systems	<i>Pesticides</i> <i>Total, Phosphorus</i> Enterococcus Mercury Temperature Total, Nitrogen
RIO JACAGUAS	LAGO GUAYABAL PRSL160A1	373	SD	NS 89011 89012 89013	4a	4a	5	5	F	Agriculture Collection System Failure Minor Industrial Point Sources Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Pesticides</i> <i>Total, Phosphorus</i> pH Total, Nitrogen

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Table 37: Lakes Assessment

Basin	Waterbody Name (AU ID)	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Overall Designated Use Attainment				Notes	Potential Sources of Pollution	Causes of Impairment
					R1	R2	AL	DW			
RIO JACAGUAS	LAGO TOA VACA PRSL ₂ 60A1	836	SD	NS 89014 89015 89016	4a	4a	5	5	F	Agriculture Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>pH</i> <i>Total, Phosphorus</i> Total, Nitrogen
RIO BUCANA-CERRILLOS	LAGO CERRILLOS PRSL62A1	700	SD	NS 89032 89033 89034	4a	4a	5	5	J	Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Total, Phosphorus</i> Total, Nitrogen
RIO YAUCO	LAGO LUCHETTI PRSL68A1	266	SD	NS 89017 89018 89019	4a	4a	5	5	F	Agriculture Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Pesticides</i> <i>pH</i> <i>Total, Phosphorus</i> Total, Nitrogen Turbidity
RIO LOCO	LAGO LOCO PRSL69A	69	SD	NS 89021C	4a	4a	5	5	F	Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Total, Phosphorus</i> pH Total, Nitrogen
RIO GRANDE DE AÑASCO	LAGO GUAYO PRWL83H	285	SD	NS 89004 89005 89006	4a	4a	5	5	K	Agriculture Confined Animal Feeding Operations Major Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems	<i>Dissolved Oxygen</i> <i>Pesticides</i> <i>pH</i> <i>Total, Nitrogen</i> <i>Total, Phosphorus</i> Turbidity

Notes:

Bold and Red causes were listed into 2020 Cycle (New added causes).

Italicized and black causes were listed into and/or prior to 2020 Cycle. (Old causes)

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B - Watershed that has an approved TMDL for Río de la Plata, the TMDL was approved on September 2003, the pollutant was Fecal Coliform.

C - Watershed that has an approved TMDL for Río Grande de Loíza, the TMDL was approved on September 2007, the pollutant was Fecal Coliform.

F - Watersheds that have approved TMDL on September 2012, the pollutant was Fecal Coliform.

H - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle.

J - Watersheds that have approved TMDL on September 2011, the pollutant was Fecal Coliform.

K - Watersheds that have an approved TMDL on September 2010, the pollutant was Fecal Coliform. The watersheds are Río Grande de Arecibo, Río Grande de Manatí, Río Grande de Añasco, Río Culebrinas.

N - Remains in 2020 303(d) list due to old segmentation evaluation.

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life

DW - Raw Source for Drinking Water

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Coastal Shoreline

Table 38: Size of Waters Impaired by Causes (Monitored Miles for Coastal Waters)		
Causes of Impairments 2017-2019 Cycle		Causes of Impairments Summary
Causes of Impairments	Size of Waters Impaired (miles)	Size of Waters Impaired (miles)
Arsenic	41.40	49.19
Copper	365.75	380.83
Dissolved Oxygen	23.34	118.61
Enterococcus	247.46	277.18
Fecal Coliforms	0	7.79
Lead	138.64	152.17
Mercury	199.09	213.37
Nickel	166.70	170.90
Oil and Grease	0	82.42
pH	92.99	176.26
Temperature	249.74	249.74
Thallium	203.74	203.74
Turbidity	403.27	422.37
Zinc	39.60	43.80

Table 39: Size of Waters Impaired by Sources (Monitored and Unmonitored Coastal waters)		
Potential Sources of Pollution 2017-2019 Cycle		Potential Sources of Pollution Summary
Potential Sources of Pollution	Size of Waters Impaired (miles)	Size of Waters Impaired (miles)
Agriculture	40.96	40.96
Collection System Failure	39.80	39.80
Debris and bottom deposits	100.30	100.30
Hazardous wastes	100.30	100.30
Highway/Road/Bridge Construction	4.20	4.20
Landfills	7.0	7.0
Major Industrial Point Sources	107.27	107.27
Major Municipal Point Sources	74.22	74.22
Marinas and Recreational Boating	211.13	211.13
Minor Municipal Point Sources	98.19	98.19
Onsite Wastewater Systems	436.49	436.49
Surface Mining	7.50	7.50
Unknown Source	91.29	91.29
Upstream Impoundment	138.01	138.01
Urban Runoff/Storm Sewer	373.14	373.14

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PRNC01 (Punta Borinquén to Punta Sardina)	11.75	SB	NS MAC-044 SBZ-003 SBZ-004 SBZ-005	1	1	5		Onsite Wastewater Systems	Copper Thallium
PRNC02 (Punta Sardina to Punta Manglillo)	14.1	SB	NS MAC-047 MAC-086 SBZ-006	5	5	5		Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Turbidity</i> Lead Thallium
PRNC03 (Punta Manglillo to Punta Morrillos)	9.65	SB	NS SBZ-007 SEG3-01	5	5	5		Collection System Failure Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Turbidity</i> Copper Temperature
PRNC04 (Punta Morrillos to Punta Manatí)	13.66	SB	NS MAC-049 MAC-055 SBZ-008 SBZ-009	5	5	5		Collection System Failure Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>pH</i> <i>Thallium</i> <i>Turbidity</i> Mercury Nickel

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PRNC05 (Punta Manatí to Punta Chivato)	7.46	SB	NS SBZ-010 SEG5-01	5	5	5		Unknown Source	<i>Copper</i> <i>Enterococcus</i> <i>pH</i> <i>Turbidity</i> Mercury Temperature Thallium
PRNC06 (Punta Chivato to Punta Puerto Nuevo)	3.23	SB	NS MAC-087 RW-23	5	5	5		Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Turbidity</i> Mercury Temperature
PRNC07 (Punta Puerto Nuevo to Punta Cerro Gordo)	5.05	SB	NS MAC-088 SEG7-01 RW-17	1	1	5		Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	<i>Copper</i> <i>Mercury</i> <i>Turbidity</i> pH Temperature
PRNC08 (Punta Cerro Gordo to Punta Boca Juana)	7.32	SB	NS MAC-061 SBZ-013 SBZ-014 RW-18	5	5	5		Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Turbidity</i> Arsenic Lead Nickel Zinc

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PREC09 (Punta Boca Juana to Punta Salinas)	5.78	SB	NS MAC-077 RW-19	1	1	5		Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	<i>Copper</i> <i>Nickel</i> <i>Turbidity</i> Arsenic Lead
PREC10B (Punta Salinas to Río Bayamón Mouth)	2.91	SB	NS MAC-063	5	5	5		Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Lead</i> <i>Mercury</i> <i>Nickel</i> <i>Turbidity</i>
PREC10C (Río Bayamon Mouth to Isla de Cabras)	6.63	SC	NS SEG10C-01 SEG10C-02	5	5	5		Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Lead</i> <i>Mercury</i> <i>Nickel</i> <i>pH</i> <i>Turbidity</i> Temperature Thallium Zinc
PREC11 (Isla de Cabras to Punta del Morro)	7.79	SC		5	5	5	H	Major Industrial Point Sources Major Municipal Point Sources Marinas and Recreational Boating Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Arsenic</i> <i>Copper</i> <i>Dissolved Oxygen</i> <i>Fecal Coliforms</i>

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PREC12 (Punta del Morro to West side of Condado Bridge)	3.5	SB	NS SBZ-018, SBZ- 019, RW-20B, RW-20A, ED- CariCoos Buoy B	1	1	1	M		
PREC13 (East side of Condado Bridge to Punta Las Marías)	4.31	SB	NS B-1 B-2	5	5	5		Urban Runoff/Storm Sewers <i>Enterococcus</i> <i>Turbidity</i> Copper Lead Mercury Temperature Thallium	
PREC14 (Punta Las Marías to Punta Cangrejos)	4.19	SB	NS EB-40 B-3 SEG14-01 SEG14-02 RW-21 RW-21C	1	1	5		Marinas and Recreational Boating Urban Runoff/Storm Sewers <i>Turbidity</i> Arsenic Copper Lead Temperature Thallium	
PREC15 (Punta Cangrejos to Punta Vacía Talega)	6.23	SB	NS SBZ-024 SBZ-026	5	5	5		Onsite Wastewater Systems Urban Runoff/Storm Sewers <i>Enterococcus</i> <i>Turbidity</i> Arsenic Copper Mercury Nickel Thallium	

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PREC16 (Punta Vacía Talega to Punta Miquillo)	9.46	SB	NS SBZ-027 SBZ-028	5	5	5		Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Turbidity</i> Arsenic Copper Lead Mercury Nickel Temperature Thallium Zinc
PREC17 (Punta Miquillo to Punta La Bandera)	8.41	SB	NS MAC-009 SEG17-01 RW-1A, RW-1C	1	1	5		Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Turbidity</i> Copper Mercury Temperature
PREC18 (Punta La Bandera to Cabezas de San Juan)	10.46	SB	NS MAC-010 SBZ-030 RW-2	1	1	5		Unknown Source	<i>pH</i> <i>Turbidity</i> Copper Temperature Thallium
PREC19 (Cabezas de San Juan to Punta Barrancas)	7.08	SB	NS MAC-078	5	5	5		Marinas and Recreational Boating Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Oil & Grease</i> <i>Turbidity</i> Temperature

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PREC20 (Punta Barrancas to Punta Medio Mundo)	5.33	SB	NS SEG20-01 SEG20-02	5	5	5		Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Turbidity</i> Copper Temperature Thallium
PREC21 (Punta Medio Mundo to Punta Puerca)	3.0	SB		3	3	3	H		
PREC22 (Punta Puerca to Isla Cabras)	3.3	SB		3	3	3	H		
PREC23 (Isla Cabras to Punta Cascajo)	8.83	SB	NS SEG23-01	1	1	5		Major Industrial Point Sources Marinas and Recreational Boating	<i>Turbidity</i> Copper
PREC24 (Punta Cascajo to Punta Lima)	9.07	SB	SEG24-01 SEG24-02	5	5	5		Major Industrial Point Sources Upstream Impoundment	<i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Turbidity</i> Copper Temperature
PREC25 (Punta Lima to Morro de Humacao)	9.83	SB	NS MAC-011 MAC-080 MAC-081 SEG25-01, RW-4	5	5	5		Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Turbidity</i> Mercury Temperature

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PREC26 (Morro de Humacao to Punta Candelero)	1.84	SB	NS SEG26-01	5	5	5		Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Turbidity</i> Copper Temperature
PREC27 (Punta Candelero to Punta Guayanés)	3.74	SB	NS SEG27-01	5	5	5		Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Turbidity</i> Arsenic Copper Thallium
PREC28C (Punta Guayanés to Punta Quebrada Honda)	4.68	SC	NS MAC-012 MAC-013 SBZ-037	5	5	5		Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Oil & Grease</i> <i>Turbidity</i> Arsenic Mercury Temperature Thallium
PREC28B (Punta Quebrada Honda to Punta Yeguas)	0.74	SB	NS SBZ-038	5	5	5		Onsite Wastewater Systems Unknown Source	<i>Copper</i> <i>Enterococcus</i> <i>Turbidity</i> Thallium
PREC29 (Punta Yeguas to Punta Tuna)	4.35	SB	NS SEG29-01 SEG29-02	5	5	5		Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Lead</i> <i>pH</i> <i>Turbidity</i> Thallium

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PREC30 (Punta Tuna to Cabo Mala Pascua)	2.65	SB	NS MAC-082	5	5	5		Unknown Source	<i>Copper</i> <i>Enterococcus</i> <i>Turbidity</i>
PRSC31 (Cabo Mala Pascua to Punta Viento)	4.06	SB	SEG31-01	5	5	5		Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	<i>Copper</i> Temperature Thallium Turbidity
PRSC32 (Punta Viento to Punta Figuras)	6.16	SB	NS MAC-083 SBZ-040 RW-6 RW-7	5	5	5		Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Turbidity</i> Mercury Temperature Thallium
PRSC33 (Punta Figuras to Punta Ola Grande)	8.1	SB	NS MAC-017 SEG33-01	5	5	5		Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Turbidity</i> Lead Mercury Temperature

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PRSC34 (Punta Ola Grande to Punta Petrona)	40.96	SB	NS MAC-019 SEG34-01 SEG34-02 ED - Stations 09, 10, 19 and 20 from National Reserve of Jobos Bay	5	5	5	M	Agriculture Major Industrial Point Sources Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	<i>Copper</i> <i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Oil & Grease</i> <i>pH</i> <i>Temperature</i> <i>Turbidity</i> Lead Mercury Nickel
PRSC35 (Punta Petrona to Punta Cabullones)	16.19	SB	NS MAC-020 SEG35-01 SEG35-02 ED - CariCoos Buoy A	5	5	5	M	Major Municipal Point Sources Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Mercury</i> <i>Turbidity</i> Lead Nickel Thallium Zinc
PRSC36B (Punta Cabullones to Punta Carenero)	2.53	SB	NS SEG36B-01	1	1	5		Major Municipal Point Sources Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Mercury</i> <i>Turbidity</i> pH Temperature

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PRSC36C (Punta Carenero to Punta Cuchara)	6.70	SC	NS MAC-022 MAC-023	5	5	5		Major Municipal Point Sources Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Dissolved Oxygen</i> <i>Mercury</i> <i>Oil & Grease</i> Turbidity
PRSC37B (Punta Cuchara to Cayo Parguera)	3.3	SB	NS MAC-084	5	5	5		Surface Mining Unknown Source Upstream Impoundment Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Mercury</i> <i>Turbidity</i> Nickel pH
PRSC37C (Cayo Parguera to Punta Guayanilla)	4.2	SC	NS MAC-024 MAC-025	5	5	5		Major Industrial Point Sources Major Municipal Point Sources Marinas and Recreational Boating Onsite Wastewater Systems Surface Mining Upstream Impoundment Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Lead</i> <i>Nickel</i> <i>Oil & Grease</i> <i>Turbidity</i> <i>Zinc</i> Mercury Thallium

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PRSC38 (Punta Guayanilla to Punta Verraco)	13.2	SC	NS MAC-027 MAC-028 MAC-089	5	5	5		Major Municipal Point Sources Marinas and Recreational Boating Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	<i>Copper</i> <i>Enterococcus</i> <i>Oil & Grease</i> <i>Temperature</i> <i>Turbidity</i> Mercury Thallium
PRSC39 (Punta Verraco to Punta Ballena)	6.41	SB	NS MAC-030 SEG39-01	1	1	5		Unknown Source	<i>Turbidity</i> Copper Thallium
PRSC40 (Punta Ballena to Punta Brea)	13.26	SB	NS MAC-034 MAC-085 RW-9	1	1	5		Marinas and Recreational Boating Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Nickel</i> <i>pH</i> <i>Temperature</i> <i>Turbidity</i> Copper
PRSC41B1 (Punta Brea to Bahía Fosforescente La Parguera)	10.93	SB	NS SBZ-045 RW-10 RW-10A RW-10B	1	1	5		Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Turbidity</i> Copper pH Temperature Thallium
PRSC41A1 (Bahía Fosforescente La Parguera)	2.0	SA		3	3	3	H		

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PRSC41B2 (Bahía Fosforescente La Parguera to Punta Cueva de Ayala)	7.0	SB	NS SBZ-046 ED - Station MGIP4 from NOAA & CariCoos	1	1	5	M	Landfill Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Copper</i> <i>Dissolved Oxygen</i> <i>pH</i> <i>Turbidity</i> Temperature Thallium
PRSC41A2 (Bahía Monsio José)	3.72	SA		3	3	3	H		
PRSC41B3 (Bahía Monsio José to Faro de Cabo Rojo)	13.45	SB	NS SEG41B3-01 SEG41B3-02	5	5	5		Unknown Source	<i>Dissolved Oxygen</i> <i>Enterococcus</i> <i>Turbidity</i> Mercury Nickel Temperature Thallium
PRWC42 (Faro de Cabo Rojo to Punta Águila)	2.89	SB	NS SEG42-01	1	1	5		Unknown Source	<i>Dissolved Oxygen</i> <i>pH</i> <i>Temperature</i> <i>Turbidity</i>
PRWC43 (Punta Águila to Punta Guaniquilla)	9.54	SB	NS MAC-037, SBZ- 047, SBZ-048, RW-12A, RW- 12B, RW-13, RW-14A	1	1	5		Collection System Failure Marinas and Recreational Boating Minor Municipal Point Sources Onsite Wastewater Systems	<i>Turbidity</i> Temperature

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PRWC44 (Punta Guaniquilla to Punta La Mela)	2.5	SB	NS SBZ-050 SBZ-051, RW-8	1	1	5		Onsite Wastewater Systems	<i>Turbidity</i> pH Thallium
PRWC45 (Punta La Mela to Punta Carenero)	2.95	SB	NS SEG45-01	5	5	5		Collection System Failure Marinas and Recreational Boating Onsite Wastewater Systems	<i>Copper</i> <i>Enterococcus</i> <i>Turbidity</i> Lead Thallium
PRWC46 (Punta Carenero to front of Cayo Ratones)	4.0	SB	NS SBZ-052	5	5	5		Collection System Failure Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	<i>Enterococcus</i> <i>Turbidity</i> Copper Lead Temperature Thallium
PRWC47 (In front of Cayo Ratones to Punta Guanajibo)	3.85	SB	NS SEG47-01	1	1	5		Onsite Wastewater Systems	<i>Turbidity</i> Copper Nickel

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PRWC48 (Punta Guanajibo to Punta Algarrobo)	5.6	SC	NS MAC-038 MAC-040	5	5	5		Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	Copper Dissolved Oxygen Enterococcus Nickel Oil & Grease pH Turbidity Lead Mercury Thallium
PRWC49 (Punta Algarrobo to Punta Cadena)	6.98	SB	NS MAC-041 SEG49-01 RW-15	5	5	5		Major Municipal Point Sources Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	Copper Enterococcus pH Turbidity Nickel Temperature
PRWC50 (Punta Cadena to Punta Higüero)	4.98	SB	NS SBZ-054 SBZ-055 RW-5	5	5	5		Onsite Wastewater Systems Unknown Source Upstream Impoundment	Copper Enterococcus Lead Nickel Turbidity Mercury

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Table 40: Coastal Shoreline Waters Assessment (Monitored and Unmonitored waters)									
Waterbody Name (AU ID)	Size of AU (miles)	Class	2020 Monitoring Station NS - Network ED - External Data	Overall Designated Use Attainment			Notes	Potential Sources of Pollution	Causes of Impairment
				R1	R2	AL			
PRWC51 (Punta Higüero to Punta del Boquerón)	6.14	SB	NS SEG51-01 SEG51-02 RW-22	5	5	5		Onsite Wastewater Systems Unknown Source Copper <i>Enterococcus</i> <i>Nickel</i> <i>Turbidity</i> Lead Mercury	
PRWC52 (Punta del Boquerón to Punta Borinquén)	6.8	SB	NS MAC-043, SBZ- 002, RW-16 RW-16A	1	1	5		Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers <i>Turbidity</i> Copper	
PRCC53 (Culebra Island)	32.7	SB	NS RW-3	2	2	5	H	Debris and bottom deposits Hazardous Wastes Marinas and Recreational Boating Onsite Wastewater Systems <i>pH</i> <i>Turbidity</i>	
PRVC54A (Bahía Mosquito)	3.0	SA		3	3	3	H		
PRVC54B (Vieques Island)	67.6	SB	NS RW-24A RW-24B	1	1	2		Debris and bottom deposits Hazardous Wastes Marinas and Recreational Boating Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	
PRMC55 (Mona Island)	18.6	SB		3	3	3	H		

Notes:

Bold and Red causes were listed into 2020 Cycle (New added causes).

Italicized and black causes were listed into and/or prior to 2020 Cycle. (Old causes)

H - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle.

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M – External Data

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life

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PART C. CWA Section 314 (Clean Lakes Program)

The reservoirs in PR were constructed in the main rivers basins in order to store water for domestic and industrial consumption, irrigation, production of electrical power, floods control, and recreation. The recreational activities performed in the reservoirs include direct contact (swimming), indirect contact (recreational fishing and strolls in boat). Also, and more important is that lakes are mostly used as raw sources of drinking water supply and for protection and propagation of fish, shellfish and wildlife (aquatic life).

The Clean Lakes Monitoring Network operated by PRDNER monitors the water quality in the 19 major lakes or reservoirs that are mostly used as raw sources of drinking water (refers to page 28, Table 13). Water quality monitoring is also used to identify trends in lake water quality improvement or contamination and to update lake trophic status.

Lakes trophic status is determined as follows. Tables 41 to 43 shows the *Oficina Panamericana de la Salud e Ingeniería / Centro Panamericano de Ingeniería Sanitaria y Ciencias del Ambiente* (OPSI/CEPIS, in spanish) criteria for the determination of the trophic status.

Oligotrophic (O) - Low levels of nutrients in lakes, poor primary production and sunlight.

Mesotrophic (M) - Moderate levels of nutrients in lakes, primary production and moderate penetration of sunlight.

Eutrophic (E) - High levels of nutrients, high primary production, dense aquatic plants growth, low sunlight penetration.

Table 41: OPSI/CEPIS Criteria for the Determination of the Trophic Status	
Trophic Status	P Concentration (mg/L)
Oligotrophic (O)	< 0.03
Mesotrophic (M)	0.03 – 0.05
Eutrophic (E)	> 0.05

Table 42: Trophic Status of Significant Lakes/Reservoirs		
Description	Number of Lakes/Reservoirs	Acres of Lakes/Reservoirs
Total in State	19*	7,378*
Assessed	18**	7,324**
Oligotrophic	5	1,830
Mesotrophic	6	1,783
Eutrophic	6	3,711

* Including Las Curiás Lake (55 acres) (SJBES)

** Lago Guineo (54 acres) not assess for this cycle

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Table 43: Puerto Rico Lakes Trophic Status				
Lake	Size (acres)	AU	Trophic Status ¹ [P mg/L] ²	
			2018 Cycle (Oct. 2015-Sept. 2017)	2020 Cycle (Oct. 2017-Sept. 2019)
Guajataca	1000	PRNL3A1	(0.05) M	(0.02) O
Dos Bocas	634	PRNL ₁ 7A1	(0.08) E	(0.07) E
Caonillas	700	PRNL ₂ 7C1	(0.06) E	(0.06) E
Garzas	108	PRNL ₃ 7A3	(0.05) M	(0.02) O
Matrullas	77	PRNL ₂ 8C1	(0.05) M	(0.02) O
La Plata	560	PREL ₁ 10A1	(0.07) E	(0.06) E
Carite	333	PREL ₂ 10A5	(0.90) E	(0.02) O
Cidra	268	PREL12A2	(0.44) E	(0.07) E
Las Curias ³	64.6	PREE13A2	(0.05) M	(0.05) M
Loíza	713	PREL14A1	(0.06) E	(0.18) E
Patillas	312	PRSL43A1	(0.05) M	(0.02) O
Melanía	35	PRSL50A	(0.05) M	(0.03) M
Guayabal	373	PRSL ₁ 60A	(0.12) E	(0.04) M
Toa Vaca	836	PRSL ₂ 60A	(0.05) M	(0.06) E
Cerrillos	700	PRSL62A	(0.06) M	(0.05) M
Luchetti	266	PRSL68A1	(0.07) E	(0.03) M
Loco	69	PRSL69A	(0.05) M	(0.04) M
Guayo	285	PRWL83H	(0.08) E	(0.03) M

(1) LAKES TROPHIC STATUS:

Oligotrophic (O) - Low levels of nutrients in lakes, poor primary production and sunlight.

Mesotrophic (M) - Moderate levels of nutrients in lakes, primary production and moderate penetration of sunlight.

Eutrophic (E) - High levels of nutrients, high primary production, dense aquatic plants growth, low sunlight penetration.

(2) Phosphorous value corresponds at the average data during two-year period.

(3) Including Las Curias Lake (64.6 acres) (SJBES)

(4) Lago Guineo (54 acres) not assess for this cycle

Following is the trend analysis for low dissolve oxygen (DO) for each monitored lake (See Table 44). This trend analysis was based on *Oficina Panamericana de la Salud e Ingeniería / Centro Panamericano de Ingeniería Sanitaria y Ciencias del Ambiente* (OPSI/CEPIS, in spanish) criteria.

Table 44: Trend Analysis for Low Dissolve Oxygen Parameter in Puerto Rico Lakes					
Lakes	Lake Size (acres)	DO (mg/L)			Trend
		2016 Cycle	2018 Cycle	2020 Cycle	
Caonillas	700	5.3	4.2	4.4	Stable
Guayo	285	3.8	4.3	3.8	Degraded
Matrullas	77	5.6	5.2	4.4	Degraded
Guayabal	373	5.5	4.7	5.4	Improved
Toa Vaca	836	4.5	4.8	3.5	Degraded

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Table 44: Trend Analysis for Low Dissolve Oxygen Parameter in Puerto Rico Lakes					
Lakes	Lake Size (acres)	DO (mg/L)			Trend
		2016 Cycle	2018 Cycle	2020 Cycle	
Luchetti	266	4.5	4.7	4.9	Stable
Loco	69	6.5	5.3	5.4	Stable
Patillas	312	4.7	4.4	4.6	Stable
Las Curias	64.6	3.9	2.7	1.8	Degraded
Cidra	268	4.4	3.7	4.9	Improved
Cerrillos	700	5.1	5.1	5.2	Stable
Loíza	713	4.1	5.0	4.0	Degraded
Guajataca	1000	6.0	4.9	5.7	Improved
Dos Bocas	634	6.2	5.0	5.3	Stable
Carite	333	5.2	4.2	4.3	Stable
La Plata	560	4.4	4.5	4.3	Stable
Garzas	108	4.3	3.7	3.6	Stable
Melanía	35	7.6	7.1	7.1	Stable

PART D. Wetlands and Coral Reefs

Wetlands

Public policy on wetlands in PR, defines wetlands as those saturated by surface and groundwater systems, in an interval and duration, sufficient to support vegetation typically adapted to saturated soil conditions, flooding or engulf. For the protection of wetlands, there are no specific parameters of water quality, however in the PRWQSR, as an amendment in April 11, 2019, in order to be consistent with the anti-degradation policy, classification SE of waters: “surface water and wetlands of exceptional ecological value, whose existing conditions shall be altered in order to preserve its natural characteristics”. The concentration of any parameter, whether or not considered in the Rule 1303.2(E), shall not be altered, except by natural phenomena, as defined in PRWQSR. In PR the protection and conservation of wetlands is the result of the efforts of several local and federal agencies, namely PRDRNA, Corps of Engineers (COE), United States Fish and Wildlife Service (USFWS) and the USEPA, as well as, community groups and environmental organizations.

Wetlands are the coastal ecosystems that are most abundant in PR. Examples of estuarine wetlands are those close to coastal rivers, salt flats and mangroves. The freshwater wetlands, comprises about of 24% of the total area of wetlands. Freshwater wetlands include swamps, ponds, marshes and humid grasslands. (**Error! Reference source not found.**). Other wetlands categories comprise 11% of the total area of wetlands. Estuarine and freshwater wetlands are

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most abundant in the eastern, 2/3 of the north coast of the island, and all along the south coast, although examples are found on all coasts of the main island Vieques and Culebra have no freshwater wetlands, (**Error! Reference source not found.**). The estuarine wetlands comprise a bout of 65% of the total area of wetlands. Examples of estuarine wetlands are those close to coastal rivers, salt flats and mangroves.

Wetlands provide habitat for thousands of species of fish, wildlife and plants, and act as nurseries for many saltwater and freshwater fishes and shellfish of commercial significance. They also provide important ecological services such as flood control, water filtration and the supply of groundwater, and they provide recreational and wildlife viewing opportunities for millions of people. Wetlands are facing numerous, ongoing challenges, such as agriculture, development and resource extraction, as well as sea level rise, increasing storm severity and drought due to climate change.

The factors that most influence coastal wetlands are: drainage, channelization and filling, disposal of industrial, agricultural and domestic waste, civil constructions, tourism expansion, storms and hurricanes, global climate change. The value of wetlands in PR for the wildlife is well documented. For example, the salt flats of Cabo Rojo, on the southwest coast, provide areas for rest and feeding of hundreds of migratory birds en route between North and South America. This area is one of the most valuable wetlands of the island. Before the drainage of coastal wetlands for agricultural purposes, freshwater marshes such as the Laguna Cartagena, Guánica Lagoon and swamp supplied water-logged habitat for hundreds of species of resident and migratory birds.

The wetlands of the highlands of central area are the last refuge of the Puerto Rican parrot, an endangered species. Even wetlands of metropolitan San Juan (Laguna La Torrecilla, Torrecilla Baja, Laguna de Piñones to Vacía Talega) provide excellent habitats for wildlife, fish hatcheries maintain high economic value and provide recreational and educational opportunities to population.

Thirty-eight species of vertebrates, mollusks and crustaceans and 46 species of birds, some rare or endangered species, such as the ladybug, the gannet, the Dominican duck, duck and pigeon-headed Warbler have been seen in these areas. Beaches, also associated with these urban wetlands provide nesting sites for Hawksbill turtles and leatherback shell, both endangered species (Del Llano et al, 1986). In PR, each acre impacted is mitigated by 0.79 acres instead of 1.01 acres as required by public policy of zero losses; indeed, the practice adopted by proponents of creating wetlands followed by the improvement, restoration and preservation, represents a threat to these systems by the time it takes to reach its former productivity and functionality (Perez, 2003).

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U.S. Fish and Wildlife Service completed the most comprehensive and detailed U.S. wetland data set ever produced, capping a 35-year effort by the Service to map the extent of the nation’s wetlands. The Wetlands Inventory Mapper has digitally mapped and made publically available wetlands in the lower 48 states, including PR. It is an invaluable aid to landowners, developers, government planners and permitting authorities, conservation organizations and academic institutions in their collective efforts to ensure wetland conservation and inform economic development.

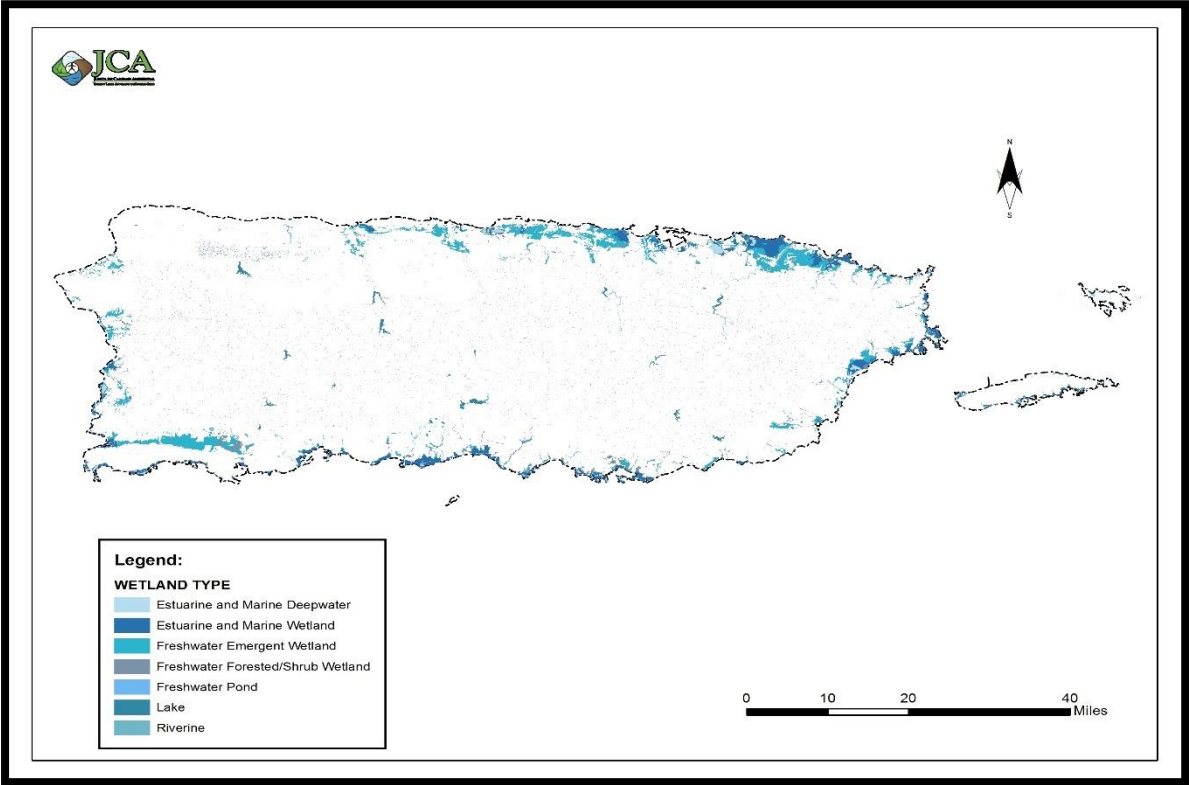


Figure 11: Puerto Rico Wetlands Type

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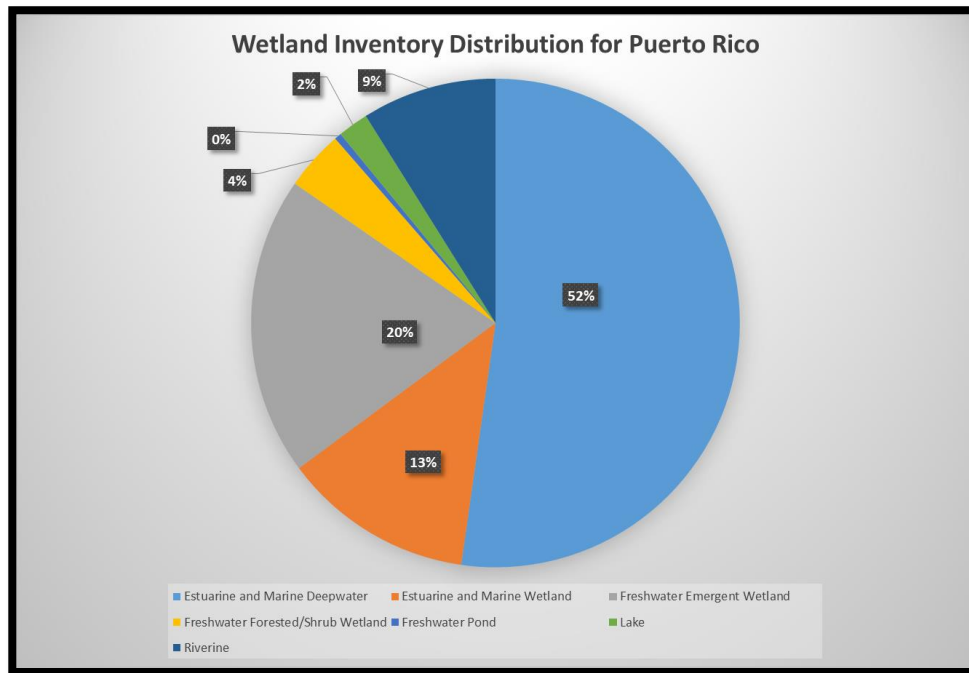


Figure 12: Puerto Rico Wetlands Distribution

Coral Reef Ecosystem

Coral reefs are the most productive ecosystems in the marine environment. They are closely related to other terrestrial and marine ecosystems. Some of these associated ecosystems are coastal wetlands, which include the mangroves, marine wetlands, such as seagrasses, beaches among others. Coral reefs provide an extraordinary amount of goods and services, such as: protection of the coast, habitats for fishing craft, commercial and recreational fishing, spaces for education, research, recreation and tourism, food (Alvarez-Filip L., 2009; Barbier, E.B., 2011; Kennedy, E.V et al., 2013; Ferrario, F., et al. 2014). Furthermore, are a sources of natural products of high pharmacological value in the food production and in the biomedical investigation (Goenaga and Boulon, 1992).

However, the coral reefs in PR are significantly degraded due to a variety of anthropogenic factors that exacerbate the impacts of natural factors (e.g. hurricanes, diseases, syndromes in corals) (Hernandez-Delgado, 2005). The anthropogenic factor that could affect the coral reef ecosystem are the following: deforestation, erosion and sedimentation. The deterioration of the water quality mainly associated with a combination of precise and dispersed sources of pollution. Indiscriminate extraction and overfishing, could destabilize the ecosystem.

PR is surrounded by approximately 500,000 hectares of coral reef ecosystems of easy access, whose depth does not exceed 20 meters (PMZC, 2009). The biodiversity at the coral reefs of P R

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is representative of this region of the Caribbean. The most extensive development of coral reefs is observed in the Southwest and northeast of the insular shelf of PR. The northeast coast, is partially protected from wave action by a string of emerging reefs that provide protection, (DNER-PMZC 2011) . The natural reserve, in Fajardo and La Reserve Natural of Luis Peña Channel in Culebra contain the most diverse coral reefs in this region. (Hernández - Delgado E.A. 2005; Schärer-M.T., M.I. Németh, C. ten 2009; García - Sais, et al.2008a). The importance of coral reefs and their status in PR is not different to what happens elsewhere. Coral reefs, according to the Management Plan for the Conservation and Protection of Coral Reefs of PR of 2009, present conditions of lower coral cover, increased disease, significant algal colonization of all kinds, species invasion exotic and overall loss of biodiversity in the ecosystem (Strategic Management Plan of the Coral Reefs in PR, DNER, 2014).

In PR the Law 147, *Ley para la Protección, Conservación y Manejo de los Arrecifes de Coral en PR*, to develop a conservation program, management and protection of coral reefs, and it promotes the development of a sustainable management plan. The act defines a coral reef as the ecosystem of coral, skeleton of this and other marine species associated with the same, such as seagrass and marine herbs.

The PRDNER in collaboration with NOAA developed a Benthic Habitat of PR and the U.S. Virgin Island (**Error! Reference source not found.**). These images were used to create maps of the region's coral reefs, seagrass beds, mangrove forests, and other important marine habitats that are related with the coral reef ecosystem. (See **Error! Reference source not found.** thru Figure 1 6).

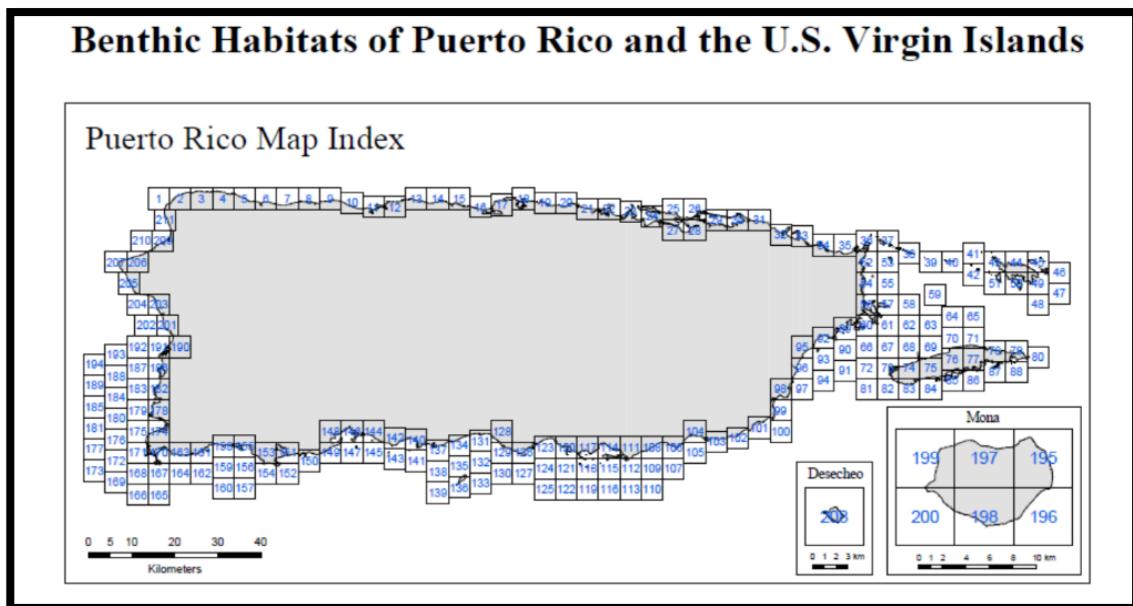


Figure 13: Benthic Habitats of Puerto Rico and the U.S. Virgin Islands

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On the other hand, the PRDNER are conducting inspections at different basin through all PR with the purpose of maintain an inventories of the discharging of points and non points sources of contamination. These inspections are intended to identify all possible sources of contamination and lead to fulfillment the facilities that represent potential sources of pollution. These action improve the water quality of the water body and will protect the marine ecosystems included the coral reef ecosystem.

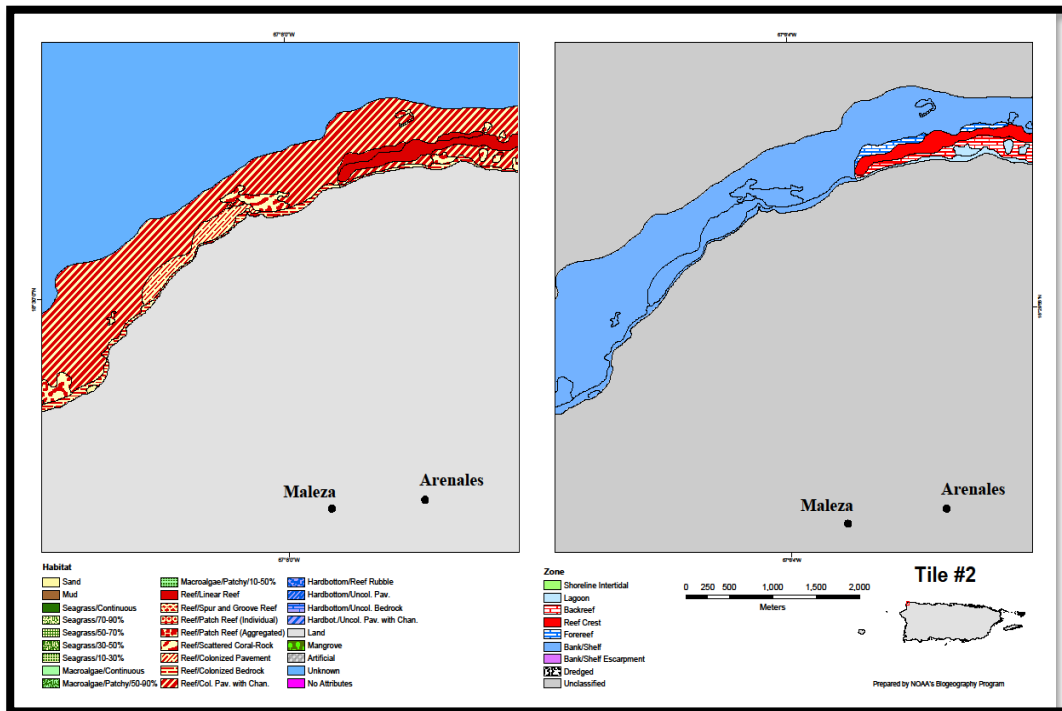


Figure 14: Example of one tile of the Benthic Map and the habitat classification

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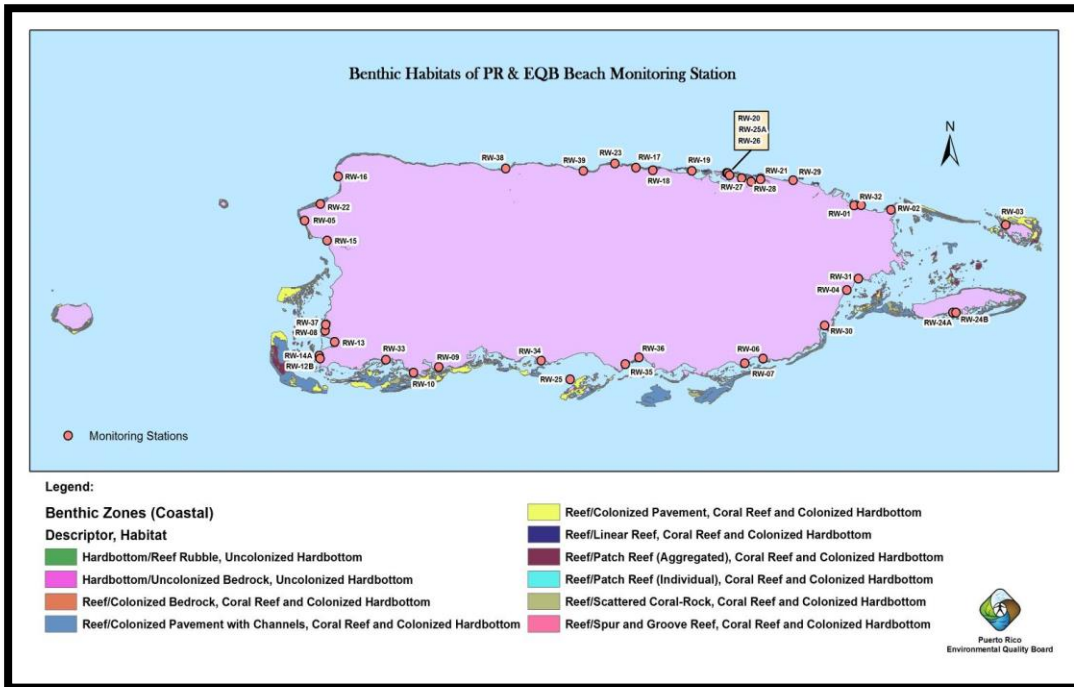


Figure 15: Benthic Habitats of PR and the Location of the PREQB Beach Monitoring Station

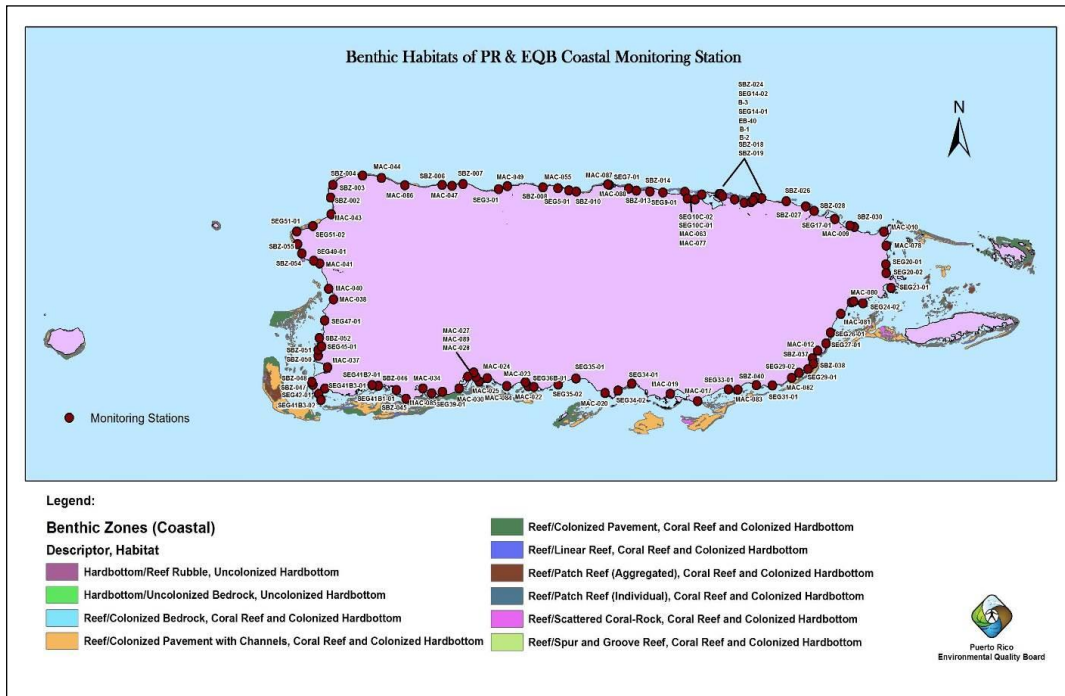


Figure 16: Benthic Habitats of PR and the Location of the PREQB Coastal Monitoring Station

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PART E. 303(d) List

Listing Criteria

The PR 2020 List of Impaired Waters (303(d) List) is based on the water quality data generated through the water quality monitoring networks, as explain in Section 2.0 Monitoring Program. In the case of the 2020 303(d) List, we considered the most recent available water quality data for each parameter in each AU (October 1, 2017 to September 30, 2019). In this assessment, the AU will be assessed as established in *Section V. Five – Part Categorization of Water of the Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of Clean Water Act.*

A segment (AU) is considered impaired when WQS are not being supported and/ or met, and is considered threatened when WQS are not expected to be fully supported and/or met in the next listing cycle. In classifying the status of water quality in 2006, states have the option to report each AU in one or more categories (multiple categories option).

The waters considered to be impaired have been included in Category 5 and it is necessary to develop and implement a TMDL for the parameter not in compliance. In the case of basin for which TMDLs have been developed, the AU will continue to be listed for those parameters that were not addressed in the TMDL. Those parameters addressed in the TMDL are delisted from the respective AU.

If any of the parameters listed in the 2018 cycle exceed the applicable water quality standard at least once in 2020 Cycle, the parameter continues to appear as an impairment cause and the AU continues to be listed in Category 5. The 303(d) List 2020 will be included in the Appendix I of this Integrated Report.

Delisting Criteria

If a previously listed parameter complied fully with the applicable water quality standard during the 2018 (October 1, 2015 to September 30, 2017) and 2020 (October 1, 2017 to September 30, 2019) cycles, that specific parameter will be delisted from 303(d) List.

PRDNER will remove a specific parameter from the list when the TMDL for the corresponding AU has been approved by USEPA. Among other valid delisting reasons are: change in water quality standard, original basis for listing was incorrect, hydrological and habitat alteration (4c).

During this cycle, it is proposed to remove ninety (90) parameter/assessment units combination from the 303(d) List. (See Table).

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Table 45: Parameter/AU Combinations to be delisted			
AU ID	Type of water	Parameter	Reason for delisting
1. PRNR3A1	River	Dissolved Oxygen	Water Quality Standard met
2. PRNR3A2	River	Total, Phosphorus	Water Quality Standard met
3. PRNR3A2	River	Turbidity	Water Quality Standard met
4. PRNR8A2	River	Total, Phosphorus	Water Quality Standard met
5. PRNR8A3	River	Copper	Water Quality Standard met
6. PRNR8A3	River	Turbidity	Water Quality Standard met
7. PRNR8B	River	Total, Nitrogen	Water Quality Standard met
8. PRNR8B	River	Total, Phosphorus	Water Quality Standard met
9. PRNR8C2	River	Copper	Water Quality Standard met
10. PRNR8E2	River	Dissolved Oxygen	Water Quality Standard met
11. PRNR9B2	River	pH	Water Quality Standard met
12. PRER10A3	River	Cyanide (as Free Cyanide)	Change in water quality standard
13. PRER10F	River	pH	Water Quality Standard met
14. PRER10G	River	Cyanide (as Free Cyanide)	Change in water quality standard
15. PRER12A1	River	Cyanide (as Free Cyanide)	Change in water quality standard
16. PRER12B	River	Copper	Water Quality Standard met
17. PRER12B	River	Cyanide (as Free Cyanide)	Change in water quality standard
18. PRER12B	River	Lead	Water Quality Standard met
19. PRER14A1	River	Copper	Water Quality Standard met
20. PRER14A1	River	Dissolved Oxygen	Water Quality Standard met
21. PRER14A2	River	Surfactants	Water Quality Standard met
22. PRER14A2	River	Total, Nitrogen	Water Quality Standard met
23. PREQ14D	Stream	Dissolved Oxygen	Water Quality Standard met
24. PRER14G2	River	Copper	Water Quality Standard met
25. PRER14G2	River	Lead	Water Quality Standard met
26. PRER14G2	River	Total, Nitrogen	Water Quality Standard met
27. PRER14H	River	Cyanide (as Free Cyanide)	Change in water quality standard
28. PRER14I	River	Cyanide (as Free Cyanide)	Change in water quality standard
29. PRER14J	River	Cyanide (as Free Cyanide)	Change in water quality standard
30. PRER14J	River	pH	Water Quality Standard met
31. PRER14L	River	Cyanide (as Free Cyanide)	Change in water quality standard

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Table 45: Parameter/AU Combinations to be delisted			
AU ID	Type of water	Parameter	Reason for delisting
32. PRER19A	River	Dissolved Oxygen	Water Quality Standard met
33. PRER22A	River	Copper	Water Quality Standard met
34. PRER22A	River	Cyanide (as Free Cyanide)	Change in water quality standard
35. PREQ25A	Stream	Temperature	Water Quality Standard met
36. PRER30A	River	Dissolved Oxygen	Water Quality Standard met
37. PRSQ50	Stream	Temperature	Water Quality Standard met
38. PRSR57A2	River	Dissolved Oxygen	Water Quality Standard met
39. PRSR57B	River	Dissolved Oxygen	Water Quality Standard met
40. PRSR62A2	River	Cyanide (as Free Cyanide)	Change in water quality standard
41. PRSR63A	River	Cyanide (as Free Cyanide)	Change in water quality standard
42. PRSR64A	River	Dissolved Oxygen	Water Quality Standard met
43. PRSR65A	River	Turbidity	Water Quality Standard met
44. PRWR77C	River	Turbidity	Water Quality Standard met
45. PRWR79A	River	Turbidity	Water Quality Standard met
46. PRWR83D	River	Turbidity	Water Quality Standard met
47. PRWR95A	River	Cyanide (as Free Cyanide)	Change in water quality standard
48. PRWQ95I	Stream	Dissolved Oxygen	Water Quality Standard met
49. PRNL27C1	Lake	Turbidity	Water Quality Standard met
50. PRSL62A1	Lake	pH	Water Quality Standard met
51. PREE13A2	SJBES	pH	Water Quality Standard met
52. PREE13A3	SJBES	Copper	Water Quality Standard met
53. PREE13A3	SJBES	Lead	Water Quality Standard met
54. PREE13A3	SJBES	Mercury	Water Quality Standard met
55. PRNC01	Coast	Dissolved Oxygen	Water Quality Standard met
56. PRNC02	Coast	pH	Water Quality Standard met
57. PRNC03	Coast	pH	Water Quality Standard met
58. PRNC05	Coast	Dissolved Oxygen	Water Quality Standard met
59. PRNC07	Coast	Dissolved Oxygen	Water Quality Standard met
60. PRNC08	Coast	Dissolved Oxygen	Water Quality Standard met
61. PREC09	Coast	Dissolved Oxygen	Water Quality Standard met
62. PREC10C	Coast	Dissolved Oxygen	Water Quality Standard met
63. PREC13	Coast	pH	Water Quality Standard met
64. PREC15	Coast	Dissolved Oxygen	Water Quality Standard met
65. PREC16	Coast	Dissolved Oxygen	Water Quality Standard met

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Table 45: Parameter/AU Combinations to be delisted			
AU ID	Type of water	Parameter	Reason for delisting
66. PREC17	Coast	Dissolved Oxygen	Water Quality Standard met
67. PREC18	Coast	Dissolved Oxygen	Water Quality Standard met
68. PREC19	Coast	Dissolved Oxygen	Water Quality Standard met
69. PREC23	Coast	Dissolved Oxygen	Water Quality Standard met
70. PREC25	Coast	Dissolved Oxygen	Water Quality Standard met
71. PREC27	Coast	Dissolved Oxygen	Water Quality Standard met
72. PREC28B	Coast	Dissolved Oxygen	Water Quality Standard met
73. PREC28C	Coast	Dissolved Oxygen	Water Quality Standard met
74. PREC29	Coast	Dissolved Oxygen	Water Quality Standard met
75. PREC30	Coast	Dissolved Oxygen	Water Quality Standard met
76. PRSC31	Coast	Dissolved Oxygen	Water Quality Standard met
77. PRSC31	Coast	Enterococcus	Water Quality Standard met
78. PRSC33	Coast	Dissolved Oxygen	Water Quality Standard met
79. PRSC35	Coast	Dissolved Oxygen	Water Quality Standard met
80. PRSC37B	Coast	Temperature	Water Quality Standard met
81. PRSC37C	Coast	pH	Water Quality Standard met
82. PRSC38	Coast	pH	Water Quality Standard met
83. PRSC40	Coast	Dissolved Oxygen	Water Quality Standard met
84. PRSC41B3	Coast	pH	Water Quality Standard met
85. PRWC43	Coast	Dissolved Oxygen	Water Quality Standard met
86. PRWC46	Coast	pH	Water Quality Standard met
87. PRWC47	Coast	pH	Water Quality Standard met
88. PRWC48	Coast	Temperature	Water Quality Standard met
89. PRWC49	Coast	Dissolved Oxygen	Water Quality Standard met
90. PRWC50	Coast	pH	Water Quality Standard met

* This AU should have been delisted in the previous cycles (2018 cycle)

Priority Ranking and TMDL Development Status

As result of the development of Puerto Rico Unified Watershed Assessment and Restoration Activities (PRUWARA), eighteen (18) main basins (115 AUs) were identified as high priority where the PREQB would implement restoration activities. The criteria used to establish the priority ranking and selection of basins appear in the document PRUWARA. Table 46 identifies the priority basins according to the corresponding regions.

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Table 43: Priority Basins		
Basin	Region	AU per Basin
Quebrada Blasina	East	1
Río Bayamón	East	5
Río Blanco	East	2
Río Grande de Loíza	East	15
Río Hondo	East	1
Río De La Plata	East	18
Río Piedras	East	1
Río Cibuco	North	6
Río Grande de Arecibo	North	12
Río Grande de Manatí	North	11
Río Guajataca	North	4
Río Coamo	South	3
Río Grande de Patillas	South	4
Río Guayanilla	South	1
Río Culebrinas	West	11
Río Grande de Añasco	West	10
Río Guanajibo	West	9
Río Yagüez	West	1

In the 2002 303 (d) List, the PRDNER established a priority ranking to determine the sequence of development for restoration activities, including the development and implementation of the TMDL. This priority ranking considered the priority of basins restoration and established three levels of priority:

1. High Priority: basins including in the PRUWARA as basins of priority due to the high pollution level related to all the designated uses.
2. Intermediate Priority: basins that were not including in the PRUWARA and have 50% or more of its waters as impaired for some designated use.
3. Low Priority: basins that were not including in the PRUWARA and have less than 50% of its waters as impaired for some designated use.

In determining the priority for the development of TMDLs for listings watersheds ranking priorities and changes in regulations applicable to water quality standards are taken into consideration. For the 2020 cycle, three hundred thirty-five (335) AU / parameter are evaluated as a high priority for the development of the TMDLs (See Table 47).

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Table 44: Basin Assessment Units/ Parameter Combination with high priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
1. Río Guajataca	Río Guajataca	PRNR3A1	Chromium VI	H
2. Río Guajataca	Río Guajataca	PRNR3A1	Enterococcus	H
3. Río Guajataca	Río Guajataca	PRNR3A1	Fecal Coliforms	H
4. Río Guajataca	Río Guajataca	PRNR3A1	Total, Nitrogen	H
5. Río Guajataca	Río Guajataca	PRNR3A2	Chromium VI	H
6. Río Guajataca	Río Guajataca	PRNR3A2	Enterococcus	H
7. Río Guajataca	Río Guajataca	PRNR3A2	Total, Nitrogen	H
8. Río Guajataca	Quebrada Las Sequías	PRNQ3B	Arsenic	H
9. Río Guajataca	Quebrada Las Sequías	PRNQ3B	Dissolved Oxygen	H
10. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A1	Chromium VI	H
11. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A1	Enterococcus	H
12. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A1	Temperature	H
13. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A1	Total, Phosphorus	H
14. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A1	Turbidity	H
15. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A2	Chromium VI	H
16. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A2	Copper	H
17. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A2	Enterococcus	H
18. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A2	Pesticides	H
19. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A2	Temperature	H
20. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A2	Total, Phosphorus	H
21. Río Grande de Arecibo	Río Grande de Arecibo	PRNR7A2	Turbidity	H
22. Río Grande de Arecibo	Túnel	PRNR7A3	Chromium VI	H
23. Río Grande de Arecibo	Túnel	PRNR7A3	Enterococcus	H
24. Río Grande de Arecibo	Túnel	PRNR7A3	Turbidity	H
25. Río Grande de Arecibo	Río Caonillas	PRNR7C1	Chromium VI	H
26. Río Grande de Arecibo	Río Caonillas	PRNR7C1	Enterococcus	H
27. Río Grande de Arecibo	Río Caonillas	PRNR7C1	Total, Nitrogen	H
28. Río Grande de Arecibo	Río Caonillas	PRNR7C1	Total, Phosphorus	H
29. Río Grande de Arecibo	Río Caonillas	PRNR7C1	Turbidity	H
30. Río Grande de Arecibo	Río Limón	PRNR7C2	Chromium VI	H
31. Río Grande de Arecibo	Río Limón	PRNR7C2	Enterococcus	H
32. Río Grande de Arecibo	Río Limón	PRNR7C2	Total, Nitrogen	H
33. Río Grande de Arecibo	Río Limón	PRNR7C2	Turbidity	H
34. Río Grande de Arecibo	Río Yunes	PRNR7C3	Chromium VI	H
35. Río Grande de Arecibo	Río Yunes	PRNR7C3	Copper	H
36. Río Grande de Arecibo	Río Yunes	PRNR7C3	Enterococcus	H
37. Río Grande de Arecibo	Río Yunes	PRNR7C3	Temperature	H
38. Río Grande de Arecibo	Río Yunes	PRNR7C3	Total, Nitrogen	H
39. Río Grande de Arecibo	Río Yunes	PRNR7C3	Total, Phosphorus	H
40. Río Grande de Arecibo	Río Yunes	PRNR7C3	Turbidity	H

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Table 44: Basin Assessment Units/ Parameter Combination with high priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
41. Río Grande de Arecibo	Río Tanamá	PRNR7B2	Chromium VI	H
42. Río Grande de Arecibo	Río Tanamá	PRNR7B2	Copper	H
43. Río Grande de Arecibo	Río Tanamá	PRNR7B2	Enterococcus	H
44. Río Grande de Arecibo	Río Tanamá	PRNR7B2	Lead	H
45. Río Grande de Arecibo	Río Tanamá	PRNR7B2	Total, Nitrogen	H
46. Río Grande de Arecibo	Río Tanamá	PRNR7B2	Total, Phosphorus	H
47. Río Grande de Arecibo	Río Tanamá	PRNR7B2	Turbidity	H
48. Río Grande de Manatí	Río Grande de Manatí	PRNR8A1	Chromium VI	H
49. Río Grande de Manatí	Río Grande de Manatí	PRNR8A1	Copper	H
50. Río Grande de Manatí	Río Grande de Manatí	PRNR8A1	Enterococcus	H
51. Río Grande de Manatí	Río Grande de Manatí	PRNR8A1	Total, Nitrogen	H
52. Río Grande de Manatí	Río Grande de Manatí	PRNR8A1	Total, Phosphorus	H
53. Río Grande de Manatí	Río Grande de Manatí	PRNR8A1	Turbidity	H
54. Río Grande de Manatí	Río Grande de Manatí	PRNR8A2	Chromium VI	H
55. Río Grande de Manatí	Río Grande de Manatí	PRNR8A2	Copper	H
56. Río Grande de Manatí	Río Grande de Manatí	PRNR8A2	Enterococcus	H
57. Río Grande de Manatí	Río Grande de Manatí	PRNR8A2	Temperature	H
58. Río Grande de Manatí	Río Grande de Manatí	PRNR8A2	Turbidity	H
59. Río Grande de Manatí	Río Cialito	PRNR8B	Chromium VI	H
60. Río Grande de Manatí	Río Cialito	PRNR8B	Enterococcus	H
61. Río Grande de Manatí	Río Cialito	PRNR8B	pH	H
62. Río Grande de Manatí	Río Cialito	PRNR8B	Turbidity	H
63. Río Grande de Manatí	Río Orocovis	PRNR8E1	Chromium VI	H
64. Río Grande de Manatí	Río Orocovis	PRNR8E1	Enterococcus	H
65. Río Grande de Manatí	Río Orocovis	PRNR8E1	Total, Nitrogen	H
66. Río Grande de Manatí	Río Orocovis	PRNR8E1	Total, Phosphorus	H
67. Río Grande de Manatí	Río Orocovis	PRNR8E1	Turbidity	H
68. Río Grande de Manatí	Río Botijas	PRNR8E2	pH	H
69. Río Cibuco	Río Cibuco	PRNR9A	Chromium VI	H
70. Río Cibuco	Río Cibuco	PRNR9A	Copper	H
71. Río Cibuco	Río Cibuco	PRNR9A	Enterococcus	H
72. Río Cibuco	Río Cibuco	PRNR9A	Total, Nitrogen	H
73. Río Cibuco	Río Cibuco	PRNR9A	Total, Phosphorus	H
74. Río Cibuco	Río Cibuco	PRNR9A	Turbidity	H
75. Río Cibuco	Río Morovis	PRNR9B2	Dissolved Oxygen	H
76. Río De La Plata	Río De La Plata	PRER10A1	Chromium VI	H
77. Río De La Plata	Río De La Plata	PRER10A1	Dissolved Oxygen	H
78. Río De La Plata	Río De La Plata	PRER10A1	Enterococcus	H
79. Río De La Plata	Río De La Plata	PRER10A1	Temperature	H
80. Río De La Plata	Río De La Plata	PRER10A1	Total, Nitrogen	H
81. Río De La Plata	Río De La Plata	PRER10A1	Total, Phosphorus	H

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Table 44: Basin Assessment Units/ Parameter Combination with high priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
82. Río De La Plata	Río De La Plata	PRER10A1	Turbidity	H
83. Río De La Plata	Río De La Plata	PRER10A3	Chromium VI	H
84. Río De La Plata	Río De La Plata	PRER10A3	Enterococcus	H
85. Río De La Plata	Río De La Plata	PRER10A3	pH	H
86. Río De La Plata	Río De La Plata	PRER10A3	Total, Nitrogen	H
87. Río De La Plata	Río De La Plata	PRER10A3	Total, Phosphorus	H
88. Río De La Plata	Río De La Plata	PRER10A3	Turbidity	H
89. Río De La Plata	Río De La Plata	PRER10A4	Chromium VI	H
90. Río De La Plata	Río De La Plata	PRER10A4	Enterococcus	H
91. Río De La Plata	Río De La Plata	PRER10A4	pH	H
92. Río De La Plata	Río De La Plata	PRER10A4	Temperature	H
93. Río De La Plata	Río De La Plata	PRER10A4	Total, Nitrogen	H
94. Río De La Plata	Río De La Plata	PRER10A4	Total, Phosphorus	H
95. Río De La Plata	Río De La Plata	PRER10A4	Turbidity	H
96. Río De La Plata	Río De La Plata	PRER10A5	Chromium VI	H
97. Río De La Plata	Río De La Plata	PRER10A5	Copper	H
98. Río De La Plata	Río De La Plata	PRER10A5	Enterococcus	H
99. Río De La Plata	Río De La Plata	PRER10A5	Lead	H
100. Río De La Plata	Río De La Plata	PRER10A5	pH	H
101. Río De La Plata	Río De La Plata	PRER10A5	Total, Nitrogen	H
102. Río De La Plata	Río De La Plata	PRER10A5	Total, Phosphorus	H
103. Río De La Plata	Río De La Plata	PRER10A5	Turbidity	H
104. Río De La Plata	Río Guadiana	PRER10E	Chromium VI	H
105. Río De La Plata	Río Guadiana	PRER10E	Enterococcus	H
106. Río De La Plata	Río Guadiana	PRER10E	Total, Nitrogen	H
107. Río De La Plata	Río Guadiana	PRER10E	Total, Phosphorus	H
108. Río De La Plata	Río Guadiana	PRER10E	Turbidity	H
109. Río De La Plata	Río Arroyata	PRER10G	Chromium VI	H
110. Río De La Plata	Río Arroyata	PRER10G	Dissolved Oxygen	H
111. Río De La Plata	Río Arroyata	PRER10G	Enterococcus	H
112. Río De La Plata	Río Arroyata	PRER10G	Total, Phosphorus	H
113. Río De La Plata	Río Arroyata	PRER10G	Turbidity	H
114. Río De La Plata	Río Matón	PRER10J	Chromium VI	H
115. Río De La Plata	Río Matón	PRER10J	Enterococcus	H
116. Río De La Plata	Río Matón	PRER10J	pH	H
117. Río De La Plata	Río Matón	PRER10J	Total, Nitrogen	H
118. Río De La Plata	Río Matón	PRER10J	Total, Phosphorus	H
119. Río De La Plata	Río Guavate	PRER10K	pH	H
120. Río Hondo	Río Hondo	PRER11A	Dissolved Oxygen	H
121. Río Hondo	Río Hondo	PRER11A	Surfactants	H
122. Río Bayamón	Río Bayamón	PRER12A1	Ammonia	H

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Table 44: Basin Assessment Units/ Parameter Combination with high priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
123. Río Bayamón	Río Bayamón	PRER12A1	Chromium VI	H
124. Río Bayamón	Río Bayamón	PRER12A1	Enterococcus	H
125. Río Bayamón	Río Bayamón	PRER12A1	pH	H
126. Río Bayamón	Río Bayamón	PRER12A1	Total, Nitrogen	H
127. Río Bayamón	Río Bayamón	PRER12A1	Total, Phosphorus	H
128. Río Bayamón	Río Bayamón	PRER12A1	Turbidity	H
129. Río Bayamón	Río Bayamón	PRER12A2	Chromium VI	H
130. Río Bayamón	Río Bayamón	PRER12A2	Enterococcus	H
131. Río Bayamón	Río Bayamón	PRER12A2	Total, Nitrogen	H
132. Río Bayamón	Río Bayamón	PRER12A2	Total, Phosphorus	H
133. Río Bayamón	Río Guaynabo	PRER12B	Chromium VI	H
134. Río Bayamón	Río Guaynabo	PRER12B	Dissolved Oxygen	H
135. Río Bayamón	Río Guaynabo	PRER12B	Enterococcus	H
136. Río Bayamón	Río Guaynabo	PRER12B	Total, Nitrogen	H
137. Río Bayamón	Río Guaynabo	PRER12B	Total, Phosphorus	H
138. Río Bayamón	Río Guaynabo	PRER12B	Turbidity	H
139. Río Grande de Loíza	Río Grande de Loíza	PRER14A1	Chromium VI	H
140. Río Grande de Loíza	Río Grande de Loíza	PRER14A1	Enterococcus	H
141. Río Grande de Loíza	Río Grande de Loíza	PRER14A1	Total, Phosphorus	H
142. Río Grande de Loíza	Río Grande de Loíza	PRER14A1	Turbidity	H
143. Río Grande de Loíza	Río Grande de Loíza	PRER14A2	Chromium VI	H
144. Río Grande de Loíza	Río Grande de Loíza	PRER14A2	Copper	H
145. Río Grande de Loíza	Río Grande de Loíza	PRER14A2	Enterococcus	H
146. Río Grande de Loíza	Río Grande de Loíza	PRER14A2	Lead	H
147. Río Grande de Loíza	Río Grande de Loíza	PRER14A2	Pesticides	H
148. Río Grande de Loíza	Río Grande de Loíza	PRER14A2	Total, Phosphorus	H
149. Río Grande de Loíza	Río Grande de Loíza	PRER14A2	Turbidity	H
150. Río Grande de Loíza	Río Canóvanas	PRER14B	Dissolved Oxygen	H
151. Río Grande de Loíza	Río Canovanillas	PRER14C	Dissolved Oxygen	H
152. Río Grande de Loíza	Río Gurabo	PRER14G1	Chromium VI	H
153. Río Grande de Loíza	Río Gurabo	PRER14G1	Copper	H
154. Río Grande de Loíza	Río Gurabo	PRER14G1	Enterococcus	H
155. Río Grande de Loíza	Río Gurabo	PRER14G1	Temperature	H
156. Río Grande de Loíza	Río Gurabo	PRER14G1	Total, Nitrogen	H
157. Río Grande de Loíza	Río Gurabo	PRER14G1	Total, Phosphorus	H
158. Río Grande de Loíza	Río Gurabo	PRER14G1	Turbidity	H
159. Río Grande de Loíza	Río Valenciano	PRER14G2	Ammonia	H
160. Río Grande de Loíza	Río Valenciano	PRER14G2	Chromium VI	H
161. Río Grande de Loíza	Río Valenciano	PRER14G2	Enterococcus	H
162. Río Grande de Loíza	Río Valenciano	PRER14G2	pH	H
163. Río Grande de Loíza	Río Valenciano	PRER14G2	Surfactants	H

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Table 44: Basin Assessment Units/ Parameter Combination with high priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
164. Río Grande de Loíza	Río Valenciano	PRER14G2	Total, Phosphorus	H
165. Río Grande de Loíza	Río Valenciano	PRER14G2	Turbidity	H
166. Río Grande de Loíza	Río Bairoa	PRER14H	Chromium VI	H
167. Río Grande de Loíza	Río Bairoa	PRER14H	Enterococcus	H
168. Río Grande de Loíza	Río Bairoa	PRER14H	Surfactants	H
169. Río Grande de Loíza	Río Bairoa	PRER14H	Total, Nitrogen	H
170. Río Grande de Loíza	Río Bairoa	PRER14H	Total, Phosphorus	H
171. Río Grande de Loíza	Río Cagüitas	PRER14I	Chromium VI	H
172. Río Grande de Loíza	Río Cagüitas	PRER14I	Enterococcus	H
173. Río Grande de Loíza	Río Cagüitas	PRER14I	Surfactants	H
174. Río Grande de Loíza	Río Cagüitas	PRER14I	Total, Nitrogen	H
175. Río Grande de Loíza	Río Cagüitas	PRER14I	Total, Phosphorus	H
176. Río Grande de Loíza	Río Cagüitas	PRER14I	Turbidity	H
177. Río Grande de Loíza	Río Turabo	PRER14J	Cadmium	H
178. Río Grande de Loíza	Río Turabo	PRER14J	Chromium VI	H
179. Río Grande de Loíza	Río Turabo	PRER14J	Copper	H
180. Río Grande de Loíza	Río Turabo	PRER14J	Enterococcus	H
181. Río Grande de Loíza	Río Turabo	PRER14J	Lead	H
182. Río Grande de Loíza	Río Turabo	PRER14J	Temperature	H
183. Río Grande de Loíza	Río Turabo	PRER14J	Total, Phosphorus	H
184. Río Grande de Loíza	Río Turabo	PRER14J	Turbidity	H
185. Río Grande de Loíza	Río Cayaguas	PRER14K	Chromium VI	H
186. Río Grande de Loíza	Río Cayaguas	PRER14K	Copper	H
187. Río Grande de Loíza	Río Cayaguas	PRER14K	Enterococcus	H
188. Río Grande de Loíza	Río Cayaguas	PRER14K	Lead	H
189. Río Grande de Loíza	Río Cayaguas	PRER14K	Total, Phosphorus	H
190. Río Grande de Loíza	Río Cayaguas	PRER14K	Turbidity	H
191. Río Blanco	Río Blanco	PRER30A	Turbidity	H
192. Río Blanco	Quebrada Peña Pobre	PREQ30B	Dissolved Oxygen	H
193. Río Grande de Patillas	Río Grande de Patillas	PRSR43A2	Chromium VI	H
194. Río Grande de Patillas	Río Grande de Patillas	PRSR43A2	Enterococcus	H
195. Río Grande de Patillas	Río Grande de Patillas	PRSR43A2	pH	H
196. Río Coamo	Río Coamo	PRSR57A2	Chromium VI	H
197. Río Coamo	Río Coamo	PRSR57A2	Enterococcus	H
198. Río Coamo	Río Coamo	PRSR57A2	pH	H
199. Río Coamo	Río Coamo	PRSR57A2	Total, Nitrogen	H
200. Río Coamo	Río Coamo	PRSR57A2	Total, Phosphorus	H
201. Río Coamo	Río Cuyón	PRSR57B	Temperature	H
202. Río Guayanilla	Río Guayanilla	PRSR67A	Ammonia	H
203. Río Guayanilla	Río Guayanilla	PRSR67A	Chromium VI	H
204. Río Guayanilla	Río Guayanilla	PRSR67A	Dissolved Oxygen	H

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Table 44: Basin Assessment Units/ Parameter Combination with high priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
205. Río Guayanilla	Río Guayanilla	PRSR67A	Enterococcus	H
206. Río Guayanilla	Río Guayanilla	PRSR67A	Temperature	H
207. Río Guayanilla	Río Guayanilla	PRSR67A	Total, Nitrogen	H
208. Río Guayanilla	Río Guayanilla	PRSR67A	Total, Phosphorus	H
209. Río Guayanilla	Río Guayanilla	PRSR67A	Turbidity	H
210. Río Guanajibo	Río Guanajibo	PRWR77A	Chromium VI	H
211. Río Guanajibo	Río Guanajibo	PRWR77A	Dissolved Oxygen	H
212. Río Guanajibo	Río Guanajibo	PRWR77A	Enterococcus	H
213. Río Guanajibo	Río Guanajibo	PRWR77A	Total, Phosphorus	H
214. Río Guanajibo	Río Guanajibo	PRWR77A	Turbidity	H
215. Río Guanajibo	Río Rosario	PRWR77C	Chromium VI	H
216. Río Guanajibo	Río Rosario	PRWR77C	Enterococcus	H
217. Río Guanajibo	Río Rosario	PRWR77C	Pesticides	H
218. Río Guanajibo	Río Viejo	PRWR77D	Chromium VI	H
219. Río Guanajibo	Río Viejo	PRWR77D	Dissolved Oxygen	H
220. Río Guanajibo	Río Viejo	PRWR77D	Enterococcus	H
221. Río Guanajibo	Río Viejo	PRWR77D	Total, Phosphorus	H
222. Río Guanajibo	Río Viejo	PRWR77D	Turbidity	H
223. Río Guanajibo	Río Cupeyes	PRWR77G	Pesticides	H
224. Río Yagüez	Río Yagüez	PRWR79A	Chromium VI	H
225. Río Yagüez	Río Yagüez	PRWR79A	Enterococcus	H
226. Río Grande de Añasco	Río Grande de Añasco	PRWR83A	Chromium VI	H
227. Río Grande de Añasco	Río Grande de Añasco	PRWR83A	Copper	H
228. Río Grande de Añasco	Río Grande de Añasco	PRWR83A	Enterococcus	H
229. Río Grande de Añasco	Río Grande de Añasco	PRWR83A	Total, Phosphorus	H
230. Río Grande de Añasco	Río Grande de Añasco	PRWR83A	Turbidity	H
231. Río Grande de Añasco	Río Prieto	PRWR83I	Pesticides	H
232. Río Culebrinas	Río Culebrinas	PRWR95A	Chromium VI	H
233. Río Culebrinas	Río Culebrinas	PRWR95A	Copper	H
234. Río Culebrinas	Río Culebrinas	PRWR95A	Enterococcus	H
235. Río Culebrinas	Río Culebrinas	PRWR95A	Pesticides	H
236. Río Culebrinas	Río Culebrinas	PRWR95A	Total, Nitrogen	H
237. Río Culebrinas	Río Culebrinas	PRWR95A	Total, Phosphorus	H
238. Río Culebrinas	Río Culebrinas	PRWR95A	Turbidity	H
239. Río Culebrinas	Quebrada La Salle	PRWQ95F	Dissolved Oxygen	H
240. Río Culebrinas	Quebrada La Salle	PRWQ95F	Pesticides	H
241. Río Culebrinas	Quebrada El Salto	PRWQ95G	Dissolved Oxygen	H
242. Río Culebrinas	Quebrada Grande De La Majagua	PRWQ95H	Pesticides	H
243. Río Guajataca	Lago Guajataca	PRNL3A1	Dissolved Oxygen	H
244. Río Guajataca	Lago Guajataca	PRNL3A1	pH	H

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Table 44: Basin Assessment Units/ Parameter Combination with high priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
245. Río Guajataca	Lago Guajataca	PRNL3A1	Temperature	H
246. Río Guajataca	Lago Guajataca	PRNL3A1	Total, Nitrogen	H
247. Río Guajataca	Lago Guajataca	PRNL3A1	Total, Phosphorus	H
248. Río Grande de Arecibo	Lago Dos Bocas	PRNL17A1	Arsenic	H
249. Río Grande de Arecibo	Lago Dos Bocas	PRNL17A1	Copper	H
250. Río Grande de Arecibo	Lago Dos Bocas	PRNL17A1	Dissolved Oxygen	H
251. Río Grande de Arecibo	Lago Dos Bocas	PRNL17A1	pH	H
252. Río Grande de Arecibo	Lago Dos Bocas	PRNL17A1	Surfactants	H
253. Río Grande de Arecibo	Lago Dos Bocas	PRNL17A1	Temperature	H
254. Río Grande de Arecibo	Lago Dos Bocas	PRNL17A1	Total, Nitrogen	H
255. Río Grande de Arecibo	Lago Dos Bocas	PRNL17A1	Total, Phosphorus	H
256. Río Grande de Arecibo	Lago Dos Bocas	PRNL17A1	Turbidity	H
257. Río Grande de Arecibo	Lago Caonillas	PRNL27C1	Copper	H
258. Río Grande de Arecibo	Lago Caonillas	PRNL27C1	Dissolved Oxygen	H
259. Río Grande de Arecibo	Lago Caonillas	PRNL27C1	Pesticides	H
260. Río Grande de Arecibo	Lago Caonillas	PRNL27C1	pH	H
261. Río Grande de Arecibo	Lago Caonillas	PRNL27C1	Total, Nitrogen	H
262. Río Grande de Arecibo	Lago Caonillas	PRNL27C1	Total, Phosphorus	H
263. Río Grande de Arecibo	Lago Garzas	PRNL37A3	Copper	H
264. Río Grande de Arecibo	Lago Garzas	PRNL37A3	Dissolved Oxygen	H
265. Río Grande de Arecibo	Lago Garzas	PRNL37A3	Lead	H
266. Río Grande de Arecibo	Lago Garzas	PRNL37A3	Pesticides	H
267. Río Grande de Arecibo	Lago Garzas	PRNL37A3	pH	H
268. Río Grande de Arecibo	Lago Garzas	PRNL37A3	Total, Phosphorus	H
269. Río Grande de Manatí	Lago Guineo	PRNL18C1	Dissolved Oxygen	H
270. Río Grande de Manatí	Lago Guineo	PRNL18C1	Pesticides	H
271. Río Grande de Manatí	Lago Matrullas	PRNL28C1	Copper	H
272. Río Grande de Manatí	Lago Matrullas	PRNL28C1	Dissolved Oxygen	H
273. Río Grande de Manatí	Lago Matrullas	PRNL28C1	Lead	H
274. Río Grande de Manatí	Lago Matrullas	PRNL28C1	pH	H
275. Río Grande de Manatí	Lago Matrullas	PRNL28C1	Total, Nitrogen	H
276. Río Grande de Manatí	Lago Matrullas	PRNL28C1	Total, Phosphorus	H
277. Río De La Plata	Lago La Plata	PREL110A1	Arsenic	H
278. Río De La Plata	Lago La Plata	PREL110A1	Dissolved Oxygen	H
279. Río De La Plata	Lago La Plata	PREL110A1	Lead	H
280. Río De La Plata	Lago La Plata	PREL110A1	pH	H
281. Río De La Plata	Lago La Plata	PREL110A1	Temperature	H
282. Río De La Plata	Lago La Plata	PREL110A1	Total, Nitrogen	H
283. Río De La Plata	Lago La Plata	PREL110A1	Total, Phosphorus	H
284. Río De La Plata	Lago La Plata	PREL110A1	Turbidity	H
285. Río De La Plata	Lago Carite	PREL210A5	Dissolved Oxygen	H

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Table 44: Basin Assessment Units/ Parameter Combination with high priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
286. Río De La Plata	Lago Carite	PREL210A5	pH	H
287. Río De La Plata	Lago Carite	PREL210A5	Total, Phosphorus	H
288. Río Bayamón	Lago Cidra	PREL12A2	Copper	H
289. Río Bayamón	Lago Cidra	PREL12A2	Dissolved Oxygen	H
290. Río Bayamón	Lago Cidra	PREL12A2	Lead	H
291. Río Bayamón	Lago Cidra	PREL12A2	Total, Nitrogen	H
292. Río Bayamón	Lago Cidra	PREL12A2	Total, Phosphorus	H
293. Río Grande de Loíza	Lago Loíza	PREL14A1	Copper	H
294. Río Grande de Loíza	Lago Loíza	PREL14A1	Dissolved Oxygen	H
295. Río Grande de Loíza	Lago Loíza	PREL14A1	Lead	H
296. Río Grande de Loíza	Lago Loíza	PREL14A1	pH	H
297. Río Grande de Loíza	Lago Loíza	PREL14A1	Temperature	H
298. Río Grande de Loíza	Lago Loíza	PREL14A1	Total, Nitrogen	H
299. Río Grande de Loíza	Lago Loíza	PREL14A1	Total, Phosphorus	H
300. Río Grande de Loíza	Lago Loíza	PREL14A1	Turbidity	H
301. Río Grande de Patillas	Lago Patillas	PRSL43A1	Dissolved Oxygen	H
302. Río Grande de Patillas	Lago Patillas	PRSL43A1	Pesticides	H
303. Río Grande de Patillas	Lago Patillas	PRSL43A1	pH	H
304. Río Grande de Patillas	Lago Patillas	PRSL43A1	Temperature	H
305. Río Grande de Patillas	Lago Patillas	PRSL43A1	Total, Phosphorus	H
306. Río Grande de Añasco	Lago Guayo	PRWL83H	Dissolved Oxygen	H
307. Río Grande de Añasco	Lago Guayo	PRWL83H	Pesticides	H
308. Río Grande de Añasco	Lago Guayo	PRWL83H	pH	H
309. Río Grande de Añasco	Lago Guayo	PRWL83H	Total, Nitrogen	H
310. Río Grande de Añasco	Lago Guayo	PRWL83H	Total, Phosphorus	H
311. Río Grande de Añasco	Lago Guayo	PRWL83H	Turbidity	H
312. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Ammonia	H
313. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Chromium VI	H
314. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Copper	H
315. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Dissolved Oxygen	H
316. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Enterococcus	H
317. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Lead	H
318. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Oil and Grease	H
319. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Surfactants	H
320. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Temperature	H
321. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Total, Nitrogen	H
322. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Total, Phosphorus	H
323. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A2	Turbidity	H
324. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Ammonia	H
325. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Chromium VI	H
326. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Dissolved Oxygen	H

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Table 44: Basin Assessment Units/ Parameter Combination with high priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
327. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Enterococcus	H
328. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Fecal Coliform	H
329. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Oil and Grease	H
330. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	pH	H
331. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Surfactants	H
332. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Temperature	H
333. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Total, Nitrogen	H
334. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Total, Phosphorus	H
335. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A3	Turbidity	H

Table 48 shows five hundred twenty-one (521) with intermediate (moderate) and low priority for the development of the TMDLs.

Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
1. Río Herrera	Río Herrera	PRER15A	Dissolved Oxygen	M
2. Río Herrera	Río Herrera	PRER15A	Turbidity	M
3. Río Espíritu Santo	Río Espíritu Santo	PRER16A	Chromium VI	M
4. Río Espíritu Santo	Río Espíritu Santo	PRER16A	Enterococcus	M
5. Río Espíritu Santo	Río Espíritu Santo	PRER16A	Total, Nitrogen	M
6. Quebrada Mata de Plátano	Quebrada Mata de Plátano	PREQ18A	Dissolved Oxygen	M
7. Quebrada Mata de Plátano	Quebrada Mata de Plátano	PREQ18A	Surfactants	M
8. Quebrada Fajardo	Quebrada Fajardo	PREQ21A	Dissolved Oxygen	M
9. Quebrada Fajardo	Quebrada Fajardo	PREQ21A	pH	M
10. Quebrada Fajardo	Quebrada Fajardo	PREQ21A	Temperature	M
11. Río Fajardo	Río Fajardo	PRER22A	Chromium VI	M
12. Río Fajardo	Río Fajardo	PRER22A	Dissolved Oxygen	M
13. Río Fajardo	Río Fajardo	PRER22A	Enterococcus	M
14. Río Fajardo	Río Fajardo	PRER22A	Temperature	M
15. Río Fajardo	Río Fajardo	PRER22A	Total, Nitrogen	M
16. Río Fajardo	Río Fajardo	PRER22A	Total, Phosphorus	M
17. Río Fajardo	Río Fajardo	PRER22A	Turbidity	M
18. Río Demajagua	Río Demajagua	PRER23A	Dissolved Oxygen	M
19. Quebrada Ceiba	Quebrada Ceiba	PREQ24A	Dissolved Oxygen	M
20. Quebrada Ceiba	Quebrada Ceiba	PREQ24A	Surfactants	M
21. Quebrada Aguas Claras	Quebrada Aguas Claras	PREQ25A	Dissolved Oxygen	M
22. Río Daguao	Río Daguao	PRER26A	Dissolved Oxygen	M
23. Quebrada Botijas	Quebrada Botijas	PREQ28A	Dissolved Oxygen	M

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
24. Río Antón Ruiz	Río Antón Ruiz	PRER31A	Dissolved Oxygen	M
25. Río Antón Ruiz	Río Antón Ruiz	PRER31A	Temperature	M
26. Quebrada Frontera	Quebrada Frontera	PREQ32A	Dissolved Oxygen	M
27. Río Humacao	Río Humacao	PRER33A	Ammonia	M
28. Río Humacao	Río Humacao	PRER33A	Chromium VI	M
29. Río Humacao	Río Humacao	PRER33A	Copper	M
30. Río Humacao	Río Humacao	PRER33A	Enterococcus	M
31. Río Humacao	Río Humacao	PRER33A	Lead	M
32. Río Humacao	Río Humacao	PRER33A	Mercury	M
33. Río Humacao	Río Humacao	PRER33A	pH	M
34. Río Humacao	Río Humacao	PRER33A	Surfactants	M
35. Río Humacao	Río Humacao	PRER33A	Temperature	M
36. Río Humacao	Río Humacao	PRER33A	Total, Nitrogen	M
37. Río Humacao	Río Humacao	PRER33A	Total, Phosphorus	M
38. Río Humacao	Río Humacao	PRER33A	Turbidity	M
39. Río Candelero	Río Candelero	PRER34A	Dissolved Oxygen	M
40. Río Guayanés	Río Guayanés	PRER35A	Chromium VI	M
41. Río Guayanés	Río Guayanés	PRER35A	Copper	M
42. Río Guayanés	Río Guayanés	PRER35A	Enterococcus	M
43. Río Guayanés	Río Guayanés	PRER35A	Lead	M
44. Río Guayanés	Río Guayanés	PRER35A	pH	M
45. Río Guayanés	Río Guayanés	PRER35A	Total, Phosphorus	M
46. Río Guayanés	Río Guayanés	PRER35A	Turbidity	M
47. Río Maunabo	Río Maunabo	PRER37A	Chromium VI	M
48. Río Maunabo	Río Maunabo	PRER37A	Enterococcus	M
49. Río Maunabo	Río Maunabo	PRER37A	Temperature	M
50. Río Maunabo	Río Maunabo	PRER37A	Total, Nitrogen	M
51. Río Maunabo	Río Maunabo	PRER37A	Total, Phosphorus	M
52. Río Maunabo	Río Maunabo	PRER37A	Turbidity	M
53. Quebrada Palenque	Quebrada Palenque	PRSQ41A	Dissolved Oxygen	M
54. Río Chico	Río Chico	PRSR42A	Ammonia	M
55. Río Chico	Río Chico	PRSR42A	Copper	M
56. Río Chico	Río Chico	PRSR42A	Dissolved Oxygen	M
57. Río Chico	Río Chico	PRSR42A	Silver	M
58. Río Chico	Río Chico	PRSR42A	Surfactants	M
59. Río Chico	Río Chico	PRSR42A	Total, Phosphorus	M
60. Río Guamaní	Río Guamaní	PRSR49A	Temperature	M
61. Quebrada Melanía	Quebrada Melanía	PRSQ50A	Dissolved Oxygen	M
62. Río Seco	Río Seco	PRSR51A	Dissolved Oxygen	M
63. Quebrada Amorós	Quebrada Amorós	PRSQ52A	Dissolved Oxygen	M
64. Quebrada Amorós	Quebrada Amorós	PRSQ52A	pH	M

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL

Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
65. Quebrada Aguas Verdes	Quebrada Aguas Verdes	PRSQ53A	Dissolved Oxygen	M
66. Río Niguas de Salinas	Río Niguas de Salinas	PRSR54A	Dissolved Oxygen	M
67. Río Cayures	Río Cayures	PRSR56A	Dissolved Oxygen	M
68. Río Cayures	Río Cayures	PRSR56A	Surfactants	M
69. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A1	Chromium VI	M
70. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A1	Dissolved Oxygen	M
71. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A1	Enterococcus	M
72. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A1	Temperature	M
73. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A1	Total, Phosphorus	M
74. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A1	Turbidity	M
75. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A2	Chromium VI	M
76. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A2	Enterococcus	M
77. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A2	pH	M
78. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A2	Total, Phosphorus	M
79. Río Bucaná-Cerrillos	Río Bucaná Cerrillos	PRSR62A2	Turbidity	M
80. Río Portugués	Río Portugués	PRSR63A	Ammonia	M
81. Río Portugués	Río Portugués	PRSR63A	Chromium VI	M
82. Río Portugués	Río Portugués	PRSR63A	Enterococcus	M
83. Río Portugués	Río Portugués	PRSR63A	Temperature	M
84. Río Portugués	Río Portugués	PRSR63A	Total, Nitrogen	M
85. Río Portugués	Río Portugués	PRSR63A	Total, Phosphorus	M
86. Río Portugués	Río Portugués	PRSR63A	Turbidity	M
87. Río Matilde-Pastillo	Río Matilde-Pastillo	PRSR64A	Temperature	M
88. Río Tallaboa	Río Tallaboa	PRSR65A	pH	M
89. Río Tallaboa	Río Tallaboa	PRSR65A	Temperature	M
90. Río Yauco	Río Yauco	PRSR68A1	Dissolved Oxygen	M
91. Río Yauco	Río Yauco	PRSR68A1	Total, Phosphorus	M
92. Río Loco	Río Loco	PRSR69A1	Dissolved Oxygen	M
93. Río Loco	Río Loco	PRSR69A1	Temperature	M
94. Río Loco	Río Loco	PRSR69A1	Turbidity	M
95. Quebrada Zumbón	Quebrada Zumbón	PRWQ72A	Dissolved Oxygen	M
96. Quebrada Zumbón	Quebrada Zumbón	PRWQ72A	Surfactants	M
97. Quebrada González	Quebrada González	PRWQ73A	Dissolved Oxygen	M
98. Quebrada Los Pajaritos	Quebrada Los Pajaritos	PRWQ74A	Dissolved Oxygen	M
99. Caño Merle	Caño Merle	PRWK78A	Dissolved Oxygen	M
100. Caño Merle	Caño Merle	PRWK78A	Surfactants	M
101. Río Herrera	Río Herrera	PREE15A	Surfactants	M
102. Río Espíritu Santo	Río Espíritu Santo	PREE16A	Dissolved Oxygen	M
103. Río Espíritu Santo	Río Espíritu Santo	PREE16A	Surfactants	M
104. Río Demajagua	Río Demajagua	PREE23A	Turbidity	M
105. Río Candelero	Río Candelero	PREE34A	Dissolved Oxygen	M

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Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
106. Río Candelero	Río Candelero	PREE34A	Temperature	M
107. Río Guayanés	Río Guayanés	PREE35A	Arsenic	M
108. Río Guayanés	Río Guayanés	PREE35A	Turbidity	M
109. Caño Santiago	Caño Santiago	PREE35.1	Dissolved Oxygen	M
110. Caño Santiago	Caño Santiago	PREE35.1	Surfactants	M
111. Caño Santiago	Caño Santiago	PREE35.1	Turbidity	M
112. Río Matilde-Pastillo	Río Matilde-Pastillo	PRSE64A	Turbidity	M
113. Río Tallaboa	Río Tallaboa	PRSE65A	Turbidity	M
114. Caño Merle	Caño Merle	PRWE78A	Surfactants	M
115. Quebrada Grande de Calvache	Quebrada Grande de Calvache	PRWE88A	Dissolved Oxygen	M
116. Río Guayabo	Río Guayabo	PRWE94A	Dissolved Oxygen	M
117. Quebrada Melanía	Lago Melanía	PRSL50A	Enterococcus	M
118. Quebrada Melanía	Lago Melanía	PRSL50A	Mercury	M
119. Quebrada Melanía	Lago Melanía	PRSL50A	Pesticides	M
120. Quebrada Melanía	Lago Melanía	PRSL50A	Temperature	M
121. Quebrada Melanía	Lago Melanía	PRSL50A	Total, Nitrogen	M
122. Quebrada Melanía	Lago Melanía	PRSL50A	Total, Phosphorus	M
123. Río Jacaguas	Lago Guayabal	PRSL ₁ 60A1	Dissolved Oxygen	M
124. Río Jacaguas	Lago Guayabal	PRSL ₁ 60A1	Pesticides	M
125. Río Jacaguas	Lago Guayabal	PRSL ₁ 60A1	pH	M
126. Río Jacaguas	Lago Guayabal	PRSL ₁ 60A1	Total, Nitrogen	M
127. Río Jacaguas	Lago Guayabal	PRSL ₁ 60A1	Total, Phosphorus	M
128. Río Jacaguas	Lago Toa vaca	PRSL ₂ 60A1	Dissolved Oxygen	M
129. Río Jacaguas	Lago Toa vaca	PRSL ₂ 60A1	pH	M
130. Río Jacaguas	Lago Toa vaca	PRSL ₂ 60A1	Total, Nitrogen	M
131. Río Jacaguas	Lago Toa vaca	PRSL ₂ 60A1	Total, Phosphorus	M
132. Río Bucaná-Cerrillos	Lago Cerrillos	PRSL62A1	Dissolved Oxygen	M
133. Río Bucaná-Cerrillos	Lago Cerrillos	PRSL62A1	Total, Nitrogen	M
134. Río Bucaná-Cerrillos	Lago Cerrillos	PRSL62A1	Total, Phosphorus	M
135. Río Yauco	Lago Luchetti	PRSL68A1	Dissolved Oxygen	M
136. Río Yauco	Lago Luchetti	PRSL68A1	Pesticides	M
137. Río Yauco	Lago Luchetti	PRSL68A1	pH	M
138. Río Yauco	Lago Luchetti	PRSL68A1	Total, Nitrogen	M
139. Río Yauco	Lago Luchetti	PRSL68A1	Total, Phosphorus	M
140. Río Yauco	Lago Luchetti	PRSL68A1	Turbidity	M
141. Río Loco	Lago Loco	PRSL69A	Dissolved Oxygen	M
142. Río Loco	Lago Loco	PRSL69A	pH	M
143. Río Loco	Lago Loco	PRSL69A	Total, Nitrogen	M
144. Río Loco	Lago Loco	PRSL69A	Total, Phosphorus	M
145. Quebrada Los Ramos	Quebrada Los Ramos	PRWQ89A	Dissolved Oxygen	L

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Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
146. Quebrada Piletas	Quebrada Piletas	PRWQ91A	Dissolved Oxygen	L
147. Caño Boquilla	Caño Boquilla	PRWE82A	Dissolved Oxygen	L
148. Caño Boquilla	Caño Boquilla	PRWE82A	Surfactants	L
149. Caño Boquilla	Caño Boquilla	PRWE82A	Turbidity	L
150. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Arsenic	L
151. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Copper	L
152. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Dissolved Oxygen	L
153. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Enterococcus	L
154. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Lead	L
155. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Mercury	L
156. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Oil and Grease	L
157. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	pH	L
158. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Selenium	L
159. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Surfactants	L
160. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Temperature	L
161. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Total, Phosphorus	L
162. San Juan Bay Estuary	San Juan Bay Estuary	PREE13A1	Turbidity	L
163. Laguna Joyudas	Laguna Joyudas	PRWN0005	Copper	L
164. Laguna Joyudas	Laguna Joyudas	PRWN0005	Dissolved Oxygen	L
165. Laguna Tortuguero	Laguna Tortuguero	PRNN0006	Dissolved Oxygen	L
166. Laguna Mata Redonda	Laguna Mata Redonda	PRNN0007	Dissolved Oxygen	L
167. Laguna Mata Redonda	Laguna Mata Redonda	PRNN0007	pH	L
168. Laguna Aguas Prieta	Laguna Aguas Prieta	PREN0011	Copper	L
169. Laguna Aguas Prieta	Laguna Aguas Prieta	PREN0011	Dissolved Oxygen	L
170. Laguna Aguas Prieta	Laguna Aguas Prieta	PREN0011	Turbidity	L
171. Laguna Grande	Laguna Grande	PREN0012	Dissolved Oxygen	L
172. Laguna Grande	Laguna Grande	PREN0012	Enterococcus	L
173. Laguna Grande	Laguna Grande	PREN0012	pH	L
174. Laguna Ceiba	Laguna Ceiba	PREN0013	Copper	L
175. Laguna Ceiba	Laguna Ceiba	PREN0013	Dissolved Oxygen	L
176. Laguna Ceiba	Laguna Ceiba	PREN0013	Enterococcus	L
177. Laguna Ceiba	Laguna Ceiba	PREN0013	pH	L
178. Laguna Pozuelo	Laguna Pozuelo	PRSN0014	Copper	L
179. Laguna Pozuelo	Laguna Pozuelo	PRSN0014	Dissolved Oxygen	L
180. Laguna Pozuelo	Laguna Pozuelo	PRSN0014	pH	L
181. Laguna Pozuelo	Laguna Pozuelo	PRSN0014	Temperature	L
182. Laguna Mar Negro	Laguna Mar Negro	PRSN0015	Copper	L
183. Laguna Mar Negro	Laguna Mar Negro	PRSN0015	Dissolved Oxygen	L
184. Laguna Mar Negro	Laguna Mar Negro	PRSN0015	pH	L
185. Laguna Punta Arenas	Laguna Punta Arenas	PRSN0016	Copper	L
186. Laguna Punta Arenas	Laguna Punta Arenas	PRSN0016	Dissolved Oxygen	L

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Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
187. Laguna Punta Arenas	Laguna Punta Arenas	PRSN0016	Temperature	L
188. Laguna Punta Arenas	Laguna Punta Arenas	PRSN0016	Turbidity	L
189. Laguna Tiburones	Laguna Tiburones	PRSN0017	Copper	L
190. Laguna Tiburones	Laguna Tiburones	PRSN0017	Dissolved Oxygen	L
191. Laguna Tiburones	Laguna Tiburones	PRSN0017	pH	L
192. Laguna Tiburones	Laguna Tiburones	PRSN0017	Temperature	L
193. Laguna Tiburones	Laguna Tiburones	PRSN0017	Turbidity	L
194. Laguna Salinas	Laguna Salinas	PRSN0018	Copper	L
195. Laguna Salinas	Laguna Salinas	PRSN0018	Dissolved Oxygen	L
196. Laguna Salinas 1	Fraternidad	PRSN0019	Copper	L
197. Laguna Salinas 1	Fraternidad	PRSN0019	Dissolved Oxygen	L
198. Laguna Salinas 1	Fraternidad	PRSN0019	Turbidity	L
199. Laguna Cabo Rojo 2	Candelaria	PRSN0020	Copper	L
200. Laguna Cabo Rojo 2	Candelaria	PRSN0020	Dissolved Oxygen	L
201. Laguna Cabo Rojo 2	Candelaria	PRSN0020	Temperature	L
202. Laguna Cabo Rojo 2	Candelaria	PRSN0020	Turbidity	L
203. Laguna Cabo Rojo 3	El Faro	PRSN0021	Copper	L
204. Laguna Cabo Rojo 3	El Faro	PRSN0021	Dissolved Oxygen	L
205. Laguna Cabo Rojo 3	El Faro	PRSN0021	Turbidity	L
206. Caño Boquerón	Caño Boquerón	PRSN0022	Copper	L
207. Caño Boquerón	Caño Boquerón	PRSN0022	Dissolved Oxygen	L
208. Caño Boquerón	Caño Boquerón	PRSN0022	pH	L
209. Caño Boquerón	Caño Boquerón	PRSN0022	Turbidity	L
210. Laguna Guaniquilla	Laguna Guaniquilla	PRSN0023	Dissolved Oxygen	L
211. Laguna Guaniquilla	Laguna Guaniquilla	PRSN0023	pH	L
212. Laguna Guaniquilla	Laguna Guaniquilla	PRSN0023	Turbidity	L
213. Punta Borinquén to Punta Sardina	Punta Borinquén to Punta Sardina	PRNC01	Copper	L
214. Punta Borinquén to Punta Sardina	Punta Borinquén to Punta Sardina	PRNC01	Thallium	L
215. Punta Sardina to Punta Manglillo	Punta Sardina to Punta Manglillo	PRNC02	Copper	L
216. Punta Sardina to Punta Manglillo	Punta Sardina to Punta Manglillo	PRNC02	Enterococcus	L
217. Punta Sardina to Punta Manglillo	Punta Sardina to Punta Manglillo	PRNC02	Lead	L
218. Punta Sardina to Punta Manglillo	Punta Sardina to Punta Manglillo	PRNC02	Thallium	L
219. Punta Sardina to Punta Manglillo	Punta Sardina to Punta Manglillo	PRNC02	Turbidity	L
220. Punta Manglillo to Punta Morillos	Punta Manglillo to Punta Morillos	PRNC03	Copper	L

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Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
221. Punta Manglillo to Punta Morillos	Punta Manglillo to Punta Morillos	PRNC03	Enterococcus	L
222. Punta Manglillo to Punta Morillos	Punta Manglillo to Punta Morillos	PRNC03	Temperature	L
223. Punta Manglillo to Punta Morillos	Punta Manglillo to Punta Morillos	PRNC03	Turbidity	L
224. Punta Morrillos to Punta Manatí	Punta Morrillos to Punta Manatí	PRNC04	Copper	L
225. Punta Morrillos to Punta Manatí	Punta Morrillos to Punta Manatí	PRNC04	Dissolved Oxygen	L
226. Punta Morrillos to Punta Manatí	Punta Morrillos to Punta Manatí	PRNC04	Enterococcus	L
227. Punta Morrillos to Punta Manatí	Punta Morrillos to Punta Manatí	PRNC04	pH	L
228. Punta Morrillos to Punta Manatí	Punta Morrillos to Punta Manatí	PRNC04	Mercury	L
229. Punta Morrillos to Punta Manatí	Punta Morrillos to Punta Manatí	PRNC04	Nickel	L
230. Punta Morrillos to Punta Manatí	Punta Morrillos to Punta Manatí	PRNC04	Thallium	L
231. Punta Morrillos to Punta Manatí	Punta Morrillos to Punta Manatí	PRNC04	Turbidity	L
232. Punta Manatí to Punta Chivato	Punta Manatí to Punta Chivato	PRNC05	Copper	L
233. Punta Manatí to Punta Chivato	Punta Manatí to Punta Chivato	PRNC05	Enterococcus	L
234. Punta Manatí to Punta Chivato	Punta Manatí to Punta Chivato	PRNC05	Mercury	L
235. Punta Manatí to Punta Chivato	Punta Manatí to Punta Chivato	PRNC05	Thallium	L
236. Punta Manatí to Punta Chivato	Punta Manatí to Punta Chivato	PRNC05	pH	L
237. Punta Manatí to Punta Chivato	Punta Manatí to Punta Chivato	PRNC05	Temperature	L
238. Punta Manatí to Punta Chivato	Punta Manatí to Punta Chivato	PRNC05	Turbidity	L
239. Punta Chivato to Punta Cerro Gordo	Punta Chivato to Punta Cerro Gordo	PRNC06	Copper	L
240. Punta Chivato to Punta Cerro Gordo	Punta Chivato to Punta Cerro Gordo	PRNC06	Enterococcus	L
241. Punta Chivato to Punta Cerro Gordo	Punta Chivato to Punta Cerro Gordo	PRNC06	Temperature	L
242. Punta Chivato to Punta Cerro Gordo	Punta Chivato to Punta Cerro Gordo	PRNC06	Mercury	

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
243. Punta Chivato to Punta Cerro Gordo	Punta Chivato to Punta Cerro Gordo	PRNC06	Turbidity	L
244. Punta Puerto Nuevo to Punta Cerro Gordo	Punta Puerto Nuevo to Punta Cerro Gordo	PRNC07	Copper	L
245. Punta Puerto Nuevo to Punta Cerro Gordo	Punta Puerto Nuevo to Punta Cerro Gordo	PRNC07	Mercury	L
246. Punta Puerto Nuevo to Punta Cerro Gordo	Punta Puerto Nuevo to Punta Cerro Gordo	PRNC07	pH	L
247. Punta Puerto Nuevo to Punta Cerro Gordo	Punta Puerto Nuevo to Punta Cerro Gordo	PRNC07	Temperature	L
248. Punta Puerto Nuevo to Punta Cerro Gordo	Punta Puerto Nuevo to Punta Cerro Gordo	PRNC07	Turbidity	L
249. Punta Cerro Gordo to Punta Boca Juana	Punta Cerro Gordo to Punta Boca Juana	PRNC08	Arsenic	L
250. Punta Cerro Gordo to Punta Boca Juana	Punta Cerro Gordo to Punta Boca Juana	PRNC08	Copper	L
251. Punta Cerro Gordo to Punta Boca Juana	Punta Cerro Gordo to Punta Boca Juana	PRNC08	Lead	L
252. Punta Cerro Gordo to Punta Boca Juana	Punta Cerro Gordo to Punta Boca Juana	PRNC08	Nickel	L
253. Punta Cerro Gordo to Punta Boca Juana	Punta Cerro Gordo to Punta Boca Juana	PRNC08	Zinc	L
254. Punta Cerro Gordo to Punta Boca Juana	Punta Cerro Gordo to Punta Boca Juana	PRNC08	Enterococcus	L
255. Punta Cerro Gordo to Punta Boca Juana	Punta Cerro Gordo to Punta Boca Juana	PRNC08	Turbidity	L
256. Punta Boca Juana to Punta Salinas	Punta Boca Juana to Punta Salinas	PREC09	Arsenic	L
257. Punta Boca Juana to Punta Salinas	Punta Boca Juana to Punta Salinas	PREC09	Copper	L
258. Punta Boca Juana to Punta Salinas	Punta Boca Juana to Punta Salinas	PREC09	Lead	L
259. Punta Boca Juana to Punta Salinas	Punta Boca Juana to Punta Salinas	PREC09	Nickel	L
260. Punta Boca Juana to Punta Salinas	Punta Boca Juana to Punta Salinas	PREC09	Turbidity	L
261. Punta Salinas to Río Bayamón Mouth	Punta Salinas to Río Bayamón Mouth	PREC10B	Copper	L
262. Punta Salinas to Río Bayamón Mouth	Punta Salinas to Río Bayamón Mouth	PREC10B	Enterococcus	L
263. Punta Salinas to Río Bayamón Mouth	Punta Salinas to Río Bayamón Mouth	PREC10B	Lead	L
264. Punta Salinas to Río Bayamón Mouth	Punta Salinas to Río Bayamón Mouth	PREC10B	Mercury	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
265. Punta Salinas to Río Bayamón Mouth	Punta Salinas to Río Bayamón Mouth	PREC10B	Nickel	L
266. Punta Salinas to Río Bayamón Mouth	Punta Salinas to Río Bayamón Mouth	PREC10B	Turbidity	L
267. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	Copper	L
268. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	Thallium	L
269. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	Zinc	L
270. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	Enterococcus	L
271. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	Lead	L
272. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	Mercury	L
273. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	Nickel	L
274. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	pH	L
275. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	Temperature	L
276. Río Bayamón Mouth to Isla de Cabras	Río Bayamón Mouth to Isla de Cabras	PREC10C	Turbidity	L
277. Isla de Cabras to Punta Del Morro	Isla de Cabras to Punta Del Morro	PREC11	Arsenic	L
278. Isla de Cabras to Punta Del Morro	Isla de Cabras to Punta Del Morro	PREC11	Copper	L
279. Isla de Cabras to Punta Del Morro	Isla de Cabras to Punta Del Morro	PREC11	Dissolved Oxygen	L
280. Isla de Cabras to Punta Del Morro	Isla de Cabras to Punta Del Morro	PREC11	Fecal Coliform	L
281. East side of Condado Bridge to Punta Las Marías	East side of Condado Bridge to Punta Las Marías	PREC13	Copper	L
282. East side of Condado Bridge to Punta Las Marías	East side of Condado Bridge to Punta Las Marías	PREC13	Enterococcus	L
283. East side of Condado Bridge to Punta Las Marías	East side of Condado Bridge to Punta Las Marías	PREC13	Lead	L
284. East side of Condado Bridge to Punta Las Marías	East side of Condado Bridge to Punta Las Marías	PREC13	Mercury	L
285. East side of Condado Bridge to Punta Las Marías	East side of Condado Bridge to Punta Las Marías	PREC13	Thallium	L
286. East side of Condado Bridge to Punta Las Marías	East side of Condado Bridge to Punta Las Marías	PREC13	Temperature	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
287. East side of Condado Bridge to Punta Las Marías	East side of Condado Bridge to Punta Las Marías	PREC13	Turbidity	L
288. Punta Las Marías to Punta Cangrejos	Punta Las Marías to Punta Cangrejos	PREC14	Arsenic	L
289. Punta Las Marías to Punta Cangrejos	Punta Las Marías to Punta Cangrejos	PREC14	Copper	L
290. Punta Las Marías to Punta Cangrejos	Punta Las Marías to Punta Cangrejos	PREC14	Temperature	L
291. Punta Las Marías to Punta Cangrejos	Punta Las Marías to Punta Cangrejos	PREC14	Lead	L
292. Punta Las Marías to Punta Cangrejos	Punta Las Marías to Punta Cangrejos	PREC14	Thallium	L
293. Punta Las Marías to Punta Cangrejos	Punta Las Marías to Punta Cangrejos	PREC14	Turbidity	L
294. Punta Cangrejos to Punta Vacía Talega	Punta Cangrejos to Punta Vacía Talega	PREC15	Arsenic	L
295. Punta Cangrejos to Punta Vacía Talega	Punta Cangrejos to Punta Vacía Talega	PREC15	Copper	L
296. Punta Cangrejos to Punta Vacía Talega	Punta Cangrejos to Punta Vacía Talega	PREC15	Mercury	L
297. Punta Cangrejos to Punta Vacía Talega	Punta Cangrejos to Punta Vacía Talega	PREC15	Nickel	L
298. Punta Cangrejos to Punta Vacía Talega	Punta Cangrejos to Punta Vacía Talega	PREC15	Thallium	L
299. Punta Cangrejos to Punta Vacía Talega	Punta Cangrejos to Punta Vacía Talega	PREC15	Enterococcus	L
300. Punta Cangrejos to Punta Vacía Talega	Punta Cangrejos to Punta Vacía Talega	PREC15	Turbidity	L
301. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Arsenic	L
302. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Copper	L
303. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Lead	L
304. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Mercury	L
305. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Thallium	L
306. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Nickel	L
307. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Zinc	L
308. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Enterococcus	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
309. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Temperature	L
310. Punta Vacía Talega to Punta Miquillo	Punta Vacía Talega to Punta Miquillo	PREC16	Turbidity	L
311. Punta Miquillo to Punta La Bandera	Punta Miquillo to Punta La Bandera	PREC17	Copper	L
312. Punta Miquillo to Punta La Bandera	Punta Miquillo to Punta La Bandera	PREC17	Mercury	L
313. Punta Miquillo to Punta La Bandera	Punta Miquillo to Punta La Bandera	PREC17	Temperature	L
314. Punta Miquillo to Punta La Bandera	Punta Miquillo to Punta La Bandera	PREC17	Turbidity	L
315. Punta La Bandera to Cabezas de San Juan	Punta La Bandera to Cabezas de San Juan	PREC18	Copper	L
316. Punta La Bandera to Cabezas de San Juan	Punta La Bandera to Cabezas de San Juan	PREC18	Thallium	L
317. Punta La Bandera to Cabezas de San Juan	Punta La Bandera to Cabezas de San Juan	PREC18	pH	L
318. Punta La Bandera to Cabezas de San Juan	Punta La Bandera to Cabezas de San Juan	PREC18	Temperature	L
319. Punta La Bandera to Cabezas de San Juan	Punta La Bandera to Cabezas de San Juan	PREC18	Turbidity	L
320. Cabezas de San Juan to Punta Barrancas	Cabezas de San Juan to Punta Barrancas	PREC19	Copper	L
321. Cabezas de San Juan to Punta Barrancas	Cabezas de San Juan to Punta Barrancas	PREC19	Enterococcus	L
322. Cabezas de San Juan to Punta Barrancas	Cabezas de San Juan to Punta Barrancas	PREC19	Oil and Grease	L
323. Cabezas de San Juan to Punta Barrancas	Cabezas de San Juan to Punta Barrancas	PREC19	Temperature	L
324. Cabezas de San Juan to Punta Barrancas	Cabezas de San Juan to Punta Barrancas	PREC19	Turbidity	L
325. Punta Barrancas to Punta Medio Mundo	Punta Barrancas to Punta Medio Mundo	PREC20	Copper	L
326. Punta Barrancas to Punta Medio Mundo	Punta Barrancas to Punta Medio Mundo	PREC20	Dissolved Oxygen	L
327. Punta Barrancas to Punta Medio Mundo	Punta Barrancas to Punta Medio Mundo	PREC20	Enterococcus	L
328. Punta Barrancas to Punta Medio Mundo	Punta Barrancas to Punta Medio Mundo	PREC20	Temperature	L
329. Punta Barrancas to Punta Medio Mundo	Punta Barrancas to Punta Medio Mundo	PREC20	Thallium	L
330. Punta Barrancas to Punta Medio Mundo	Punta Barrancas to Punta Medio Mundo	PREC20	Turbidity	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
331. Isla Cabras to Punta Cascajo	Isla Cabras to Punta Cascajo	PREC23	Copper	L
332. Isla Cabras to Punta Cascajo	Isla Cabras to Punta Cascajo	PREC23	Turbidity	L
333. Punta Cascajo to Punta Lima	Punta Cascajo to Punta Lima	PREC24	Copper	L
334. Punta Cascajo to Punta Lima	Punta Cascajo to Punta Lima	PREC24	Dissolved Oxygen	L
335. Punta Cascajo to Punta Lima	Punta Cascajo to Punta Lima	PREC24	Enterococcus	L
336. Punta Cascajo to Punta Lima	Punta Cascajo to Punta Lima	PREC24	Temperature	L
337. Punta Cascajo to Punta Lima	Punta Cascajo to Punta Lima	PREC24	Turbidity	L
338. Punta Lima to Morro de Humacao	Punta Lima to Morro de Humacao	PREC25	Copper	L
339. Punta Lima to Morro de Humacao	Punta Lima to Morro de Humacao	PREC25	Mercury	L
340. Punta Lima to Morro de Humacao	Punta Lima to Morro de Humacao	PREC25	Temperature	L
341. Punta Lima to Morro de Humacao	Punta Lima to Morro de Humacao	PREC25	Enterococcus	L
342. Punta Lima to Morro de Humacao	Punta Lima to Morro de Humacao	PREC25	Turbidity	L
343. Morro de Humacao to Punta Candelero	Morro de Humacao to Punta Candelero	PREC26	Copper	L
344. Morro de Humacao to Punta Candelero	Morro de Humacao to Punta Candelero	PREC26	Enterococcus	L
345. Morro de Humacao to Punta Candelero	Morro de Humacao to Punta Candelero	PREC26	Temperature	L
346. Morro de Humacao to Punta Candelero	Morro de Humacao to Punta Candelero	PREC26	Turbidity	L
347. Punta Candelero to Punta Guayanés	Punta Candelero to Punta Guayanés	PREC27	Arsenic	L
348. Punta Candelero to Punta Guayanés	Punta Candelero to Punta Guayanés	PREC27	Copper	L
349. Punta Candelero to Punta Guayanés	Punta Candelero to Punta Guayanés	PREC27	Thallium	L
350. Punta Candelero to Punta Guayanés	Punta Candelero to Punta Guayanés	PREC27	Enterococcus	L
351. Punta Candelero to Punta Guayanés	Punta Candelero to Punta Guayanés	PREC27	Turbidity	L
352. Punta Guayanés to Punta Quebrada Honda	Punta Guayanés to Punta Quebrada Honda	PREC28C	Arsenic	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
353. Punta Guayanés to Punta Quebrada Honda	Punta Guayanés to Punta Quebrada Honda	PREC28C	Copper	L
354. Punta Guayanés to Punta Quebrada Honda	Punta Guayanés to Punta Quebrada Honda	PREC28C	Thallium	L
355. Punta Guayanés to Punta Quebrada Honda	Punta Guayanés to Punta Quebrada Honda	PREC28C	Mercury	L
356. Punta Guayanés to Punta Quebrada Honda	Punta Guayanés to Punta Quebrada Honda	PREC28C	Enterococcus	L
357. Punta Guayanés to Punta Quebrada Honda	Punta Guayanés to Punta Quebrada Honda	PREC28C	Oil and Grease	L
358. Punta Guayanés to Punta Quebrada Honda	Punta Guayanés to Punta Quebrada Honda	PREC28C	Temperature	L
359. Punta Guayanés to Punta Quebrada Honda	Punta Guayanés to Punta Quebrada Honda	PREC28C	Turbidity	L
360. Punta Quebrada Honda to Punta Yeguas	Punta Quebrada Honda to Punta Yeguas	PREC28B	Copper	L
361. Punta Quebrada Honda to Punta Yeguas	Punta Quebrada Honda to Punta Yeguas	PREC28B	Thallium	L
362. Punta Quebrada Honda to Punta Yeguas	Punta Quebrada Honda to Punta Yeguas	PREC28B	Enterococcus	L
363. Punta Quebrada Honda to Punta Yeguas	Punta Quebrada Honda to Punta Yeguas	PREC28B	Turbidity	L
364. Punta Yeguas to Punta Tuna	Punta Yeguas to Punta Tuna	PREC29	Copper	L
365. Punta Yeguas to Punta Tuna	Punta Yeguas to Punta Tuna	PREC29	Thallium	L
366. Punta Yeguas to Punta Tuna	Punta Yeguas to Punta Tuna	PREC29	Enterococcus	L
367. Punta Yeguas to Punta Tuna	Punta Yeguas to Punta Tuna	PREC29	Lead	L
368. Punta Yeguas to Punta Tuna	Punta Yeguas to Punta Tuna	PREC29	pH	L
369. Punta Yeguas to Punta Tuna	Punta Yeguas to Punta Tuna	PREC29	Turbidity	L
370. Punta Tuna to Cabo Mala Pascua	Punta Tuna to Cabo Mala Pascua	PREC30	Copper	L
371. Punta Tuna to Cabo Mala Pascua	Punta Tuna to Cabo Mala Pascua	PREC30	Enterococcus	L
372. Punta Tuna to Cabo Mala Pascua	Punta Tuna to Cabo Mala Pascua	PREC30	Turbidity	L
373. Cabo Mala Pascua to Punta Viento	Cabo Mala Pascua to Punta Viento	PRSC31	Copper	L
374. Cabo Mala Pascua to Punta Viento	Cabo Mala Pascua to Punta Viento	PRSC31	Thallium	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
375. Cabo Mala Pascua to Punta Viento	Cabo Mala Pascua to Punta Viento	PRSC31	Turbidity	L
376. Cabo Mala Pascua to Punta Viento	Cabo Mala Pascua to Punta Viento	PRSC31	Temperature	L
377. Punta Viento to Punta Figuras	Punta Viento to Punta Figuras	PRSC32	Copper	L
378. Punta Viento to Punta Figuras	Punta Viento to Punta Figuras	PRSC32	Dissolved Oxygen	L
379. Punta Viento to Punta Figuras	Punta Viento to Punta Figuras	PRSC32	Enterococcus	L
380. Punta Viento to Punta Figuras	Punta Viento to Punta Figuras	PRSC32	Thallium	L
381. Punta Viento to Punta Figuras	Punta Viento to Punta Figuras	PRSC32	Mercury	L
382. Punta Viento to Punta Figuras	Punta Viento to Punta Figuras	PRSC32	Temperature	L
383. Punta Viento to Punta Figuras	Punta Viento to Punta Figuras	PRSC32	Turbidity	L
384. Punta Figuras to Punta Ola Grande	Punta Figuras to Punta Ola Grande	PRSC33	Copper	L
385. Punta Figuras to Punta Ola Grande	Punta Figuras to Punta Ola Grande	PRSC33	Lead	L
386. Punta Figuras to Punta Ola Grande	Punta Figuras to Punta Ola Grande	PRSC33	Enterococcus	L
387. Punta Figuras to Punta Ola Grande	Punta Figuras to Punta Ola Grande	PRSC33	Mercury	L
388. Punta Figuras to Punta Ola Grande	Punta Figuras to Punta Ola Grande	PRSC33	Temperature	L
389. Punta Figuras to Punta Ola Grande	Punta Figuras to Punta Ola Grande	PRSC33	Turbidity	L
390. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	Copper	L
391. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	Dissolved Oxygen	L
392. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	Enterococcus	L
393. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	Oil and Grease	L
394. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	Lead	L
395. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	Mercury	L
396. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	Nickel	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
397. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	pH	L
398. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	Temperature	L
399. Punta Ola Grande to Punta Petrona	Punta Ola Grande to Punta Petrona	PRSC34	Turbidity	L
400. Punta Petrona to Punta Cabullones	Punta Petrona to Punta Cabullones	PRSC35	Copper	L
401. Punta Petrona to Punta Cabullones	Punta Petrona to Punta Cabullones	PRSC35	Lead	L
402. Punta Petrona to Punta Cabullones	Punta Petrona to Punta Cabullones	PRSC35	Nickel	L
403. Punta Petrona to Punta Cabullones	Punta Petrona to Punta Cabullones	PRSC35	Thallium	L
404. Punta Petrona to Punta Cabullones	Punta Petrona to Punta Cabullones	PRSC35	Zinc	L
405. Punta Petrona to Punta Cabullones	Punta Petrona to Punta Cabullones	PRSC35	Enterococcus	L
406. Punta Petrona to Punta Cabullones	Punta Petrona to Punta Cabullones	PRSC35	Mercury	L
407. Punta Petrona to Punta Cabullones	Punta Petrona to Punta Cabullones	PRSC35	Turbidity	L
408. Punta Cabullones to Punta Carenero	Punta Cabullones to Punta Carenero	PRSC36B	Copper	L
409. Punta Cabullones to Punta Carenero	Punta Cabullones to Punta Carenero	PRSC36B	Mercury	L
410. Punta Cabullones to Punta Carenero	Punta Cabullones to Punta Carenero	PRSC36B	pH	L
411. Punta Cabullones to Punta Carenero	Punta Cabullones to Punta Carenero	PRSC36B	Temperature	L
412. Punta Cabullones to Punta Carenero	Punta Cabullones to Punta Carenero	PRSC36B	Turbidity	L
413. Punta Carenero to Punta Cuchara	Punta Carenero to Punta Cuchara	PRSC36C	Copper	L
414. Punta Carenero to Punta Cuchara	Punta Carenero to Punta Cuchara	PRSC36C	Dissolved Oxygen	L
415. Punta Carenero to Punta Cuchara	Punta Carenero to Punta Cuchara	PRSC36C	Enterococcus	L
416. Punta Carenero to Punta Cuchara	Punta Carenero to Punta Cuchara	PRSC36C	Mercury	L
417. Punta Carenero to Punta Cuchara	Punta Carenero to Punta Cuchara	PRSC36C	Oil and Grease	L
418. Punta Carenero to Punta Cuchara	Punta Carenero to Punta Cuchara	PRSC36C	Turbidity	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
419. Punta Cuchara to Cayo Parguera	Punta Cuchara to Cayo Parguera	PRSC37B	Copper	L
420. Punta Cuchara to Cayo Parguera	Punta Cuchara to Cayo Parguera	PRSC37B	Enterococcus	L
421. Punta Cuchara to Cayo Parguera	Punta Cuchara to Cayo Parguera	PRSC37B	Mercury	L
422. Punta Cuchara to Cayo Parguera	Punta Cuchara to Cayo Parguera	PRSC37B	Nickel	L
423. Punta Cuchara to Cayo Parguera	Punta Cuchara to Cayo Parguera	PRSC37B	pH	L
424. Punta Cuchara to Cayo Parguera	Punta Cuchara to Cayo Parguera	PRSC37B	Turbidity	L
425. Cayo Parguera to Punta Guayanilla	Cayo Parguera to Punta Guayanilla	PRSC37C	Copper	L
426. Cayo Parguera to Punta Guayanilla	Cayo Parguera to Punta Guayanilla	PRSC37C	Enterococcus	L
427. Cayo Parguera to Punta Guayanilla	Cayo Parguera to Punta Guayanilla	PRSC37C	Lead	L
428. Cayo Parguera to Punta Guayanilla	Cayo Parguera to Punta Guayanilla	PRSC37C	Mercury	L
429. Cayo Parguera to Punta Guayanilla	Cayo Parguera to Punta Guayanilla	PRSC37C	Nickel	L
430. Cayo Parguera to Punta Guayanilla	Cayo Parguera to Punta Guayanilla	PRSC37C	Oil and Grease	L
431. Cayo Parguera to Punta Guayanilla	Cayo Parguera to Punta Guayanilla	PRSC37C	Thallium	L
432. Cayo Parguera to Punta Guayanilla	Cayo Parguera to Punta Guayanilla	PRSC37C	Turbidity	L
433. Cayo Parguera to Punta Guayanilla	Cayo Parguera to Punta Guayanilla	PRSC37C	Zinc	L
434. Punta Guayanilla to Punta Verraco	Punta Guayanilla to Punta Verraco	PRSC38	Copper	L
435. Punta Guayanilla to Punta Verraco	Punta Guayanilla to Punta Verraco	PRSC38	Enterococcus	L
436. Punta Guayanilla to Punta Verraco	Punta Guayanilla to Punta Verraco	PRSC38	Mercury	L
437. Punta Guayanilla to Punta Verraco	Punta Guayanilla to Punta Verraco	PRSC38	Oil and Grease	L
438. Punta Guayanilla to Punta Verraco	Punta Guayanilla to Punta Verraco	PRSC38	Temperature	L
439. Punta Guayanilla to Punta Verraco	Punta Guayanilla to Punta Verraco	PRSC38	Thallium	L
440. Punta Guayanilla to Punta Verraco	Punta Guayanilla to Punta Verraco	PRSC38	Turbidity	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
441. Punta Verraco to Punta Ballena	Punta Verraco to Punta Ballena	PRSC39	Copper	L
442. Punta Verraco to Punta Ballena	Punta Verraco to Punta Ballena	PRSC39	Thallium	L
443. Punta Verraco to Punta Ballena	Punta Verraco to Punta Ballena	PRSC39	Turbidity	L
444. Punta Ballena to Punta Brea	Punta Ballena to Punta Brea	PRSC40	Copper	L
445. Punta Ballena to Punta Brea	Punta Ballena to Punta Brea	PRSC40	Nickel	L
446. Punta Ballena to Punta Brea	Punta Ballena to Punta Brea	PRSC40	pH	L
447. Punta Ballena to Punta Brea	Punta Ballena to Punta Brea	PRSC40	Temperature	L
448. Punta Ballena to Punta Brea	Punta Ballena to Punta Brea	PRSC40	Turbidity	L
449. Punta Brea to Bahía Fosforescente La Parguera	Punta Brea to Bahía Fosforescente La Parguera	PRSC41B1	Copper	L
450. Punta Brea to Bahía Fosforescente La Parguera	Punta Brea to Bahía Fosforescente La Parguera	PRSC41B1	pH	L
451. Punta Brea to Bahía Fosforescente La Parguera	Punta Brea to Bahía Fosforescente La Parguera	PRSC41B1	Temperature	L
452. Punta Brea to Bahía Fosforescente La Parguera	Punta Brea to Bahía Fosforescente La Parguera	PRSC41B1	Thallium	L
453. Punta Brea to Bahía Fosforescente La Parguera	Punta Brea to Bahía Fosforescente La Parguera	PRSC41B1	Turbidity	L
454. Bahía Fosforescente La Parguera to Punta Cueva de Ayala	Bahía Fosforescente La Parguera to Punta Cueva de Ayala	PRSC41B2	Copper	L
455. Bahía Fosforescente La Parguera to Punta Cueva de Ayala	Bahía Fosforescente La Parguera to Punta Cueva de Ayala	PRSC41B2	Dissolved Oxygen	L
456. Bahía Fosforescente La Parguera to Punta Cueva de Ayala	Bahía Fosforescente La Parguera to Punta Cueva de Ayala	PRSC41B2	pH	L
457. Bahía Fosforescente La Parguera to Punta Cueva de Ayala	Bahía Fosforescente La Parguera to Punta Cueva de Ayala	PRSC41B2	Temperature	L
458. Bahía Fosforescente La Parguera to Punta Cueva de Ayala	Bahía Fosforescente La Parguera to Punta Cueva de Ayala	PRSC41B2	Thallium	L
459. Bahía Fosforescente La Parguera to Punta Cueva de Ayala	Bahía Fosforescente La Parguera to Punta Cueva de Ayala	PRSC41B2	Turbidity	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
460. Bahía Monsio José to Faro de Cabo Rojo	Bahía Monsio José to Faro de Cabo Rojo	PRSC41B3	Dissolved Oxygen	L
461. Bahía Monsio José to Faro de Cabo Rojo	Bahía Monsio José to Faro de Cabo Rojo	PRSC41B3	Enterococcus	L
462. Bahía Monsio José to Faro de Cabo Rojo	Bahía Monsio José to Faro de Cabo Rojo	PRSC41B3	Mercury	L
463. Bahía Monsio José to Faro de Cabo Rojo	Bahía Monsio José to Faro de Cabo Rojo	PRSC41B3	Nickel	L
464. Bahía Monsio José to Faro de Cabo Rojo	Bahía Monsio José to Faro de Cabo Rojo	PRSC41B3	Temperature	L
465. Bahía Monsio José to Faro de Cabo Rojo	Bahía Monsio José to Faro de Cabo Rojo	PRSC41B3	Thallium	L
466. Bahía Monsio José to Faro de Cabo Rojo	Bahía Monsio José to Faro de Cabo Rojo	PRSC41B3	Turbidity	L
467. Faro de Cabo Rojo to Punta Águila	Faro de Cabo Rojo to Punta Águila	PRWC42	Dissolved Oxygen	L
468. Faro de Cabo Rojo to Punta Águila	Faro de Cabo Rojo to Punta Águila	PRWC42	pH	L
469. Faro de Cabo Rojo to Punta Águila	Faro de Cabo Rojo to Punta Águila	PRWC42	Temperature	L
470. Faro de Cabo Rojo to Punta Águila	Faro de Cabo Rojo to Punta Águila	PRWC42	Turbidity	L
471. Punta Águila to Punta Guaniquilla	Punta Águila to Punta Guaniquilla	PRWC43	Temperature	L
472. Punta Águila to Punta Guaniquilla	Punta Águila to Punta Guaniquilla	PRWC43	Turbidity	L
473. Punta Guaniquilla to Punta La Mela	Punta Guaniquilla to Punta La Mela	PRWC44	pH	L
474. Punta Guaniquilla to Punta La Mela	Punta Guaniquilla to Punta La Mela	PRWC44	Thallium	L
475. Punta Guaniquilla to Punta La Mela	Punta Guaniquilla to Punta La Mela	PRWC44	Turbidity	L
476. Punta La Mela to Punta Carenero	Punta La Mela to Punta Carenero	PRWC45	Copper	L
477. Punta La Mela to Punta Carenero	Punta La Mela to Punta Carenero	PRWC45	Enterococcus	L
478. Punta La Mela to Punta Carenero	Punta La Mela to Punta Carenero	PRWC45	Lead	L
479. Punta La Mela to Punta Carenero	Punta La Mela to Punta Carenero	PRWC45	Thallium	L
480. Punta La Mela to Punta Carenero	Punta La Mela to Punta Carenero	PRWC45	Turbidity	L
481. Punta Carenero to front of Cayo Ratones	Punta Carenero to front of Cayo Ratones	PRWC46	Copper	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
482. Punta Carenero to front of Cayo Ratones	Punta Carenero to front of Cayo Ratones	PRWC46	Enterococcus	L
483. Punta Carenero to front of Cayo Ratones	Punta Carenero to front of Cayo Ratones	PRWC46	Lead	L
484. Punta Carenero to front of Cayo Ratones	Punta Carenero to front of Cayo Ratones	PRWC46	Temperature	L
485. Punta Carenero to front of Cayo Ratones	Punta Carenero to front of Cayo Ratones	PRWC46	Thallium	L
486. Punta Carenero to front of Cayo Ratones	Punta Carenero to front of Cayo Ratones	PRWC46	Turbidity	L
487. In front of Cayo Ratones to Punta Guanajibo	In front of Cayo Ratones to Punta Guanajibo	PRWC47	Copper	L
488. In front of Cayo Ratones to Punta Guanajibo	In front of Cayo Ratones to Punta Guanajibo	PRWC47	Nickel	L
489. In front of Cayo Ratones to Punta Guanajibo	In front of Cayo Ratones to Punta Guanajibo	PRWC47	Turbidity	L
490. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	Copper	L
491. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	Dissolved Oxygen	L
492. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	Enterococcus	L
493. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	Lead	L
494. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	Mercury	L
495. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	Nickel	L
496. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	Oil and Grease	L
497. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	pH	L
498. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	Thallium	L
499. Punta Guanajibo to Punta Algarrobo	Punta Guanajibo to Punta Algarrobo	PRWC48	Turbidity	L
500. Punta Algarrobo to Punta Cadena	Punta Algarrobo to Punta Cadena	PRWC49	Copper	L
501. Punta Algarrobo to Punta Cadena	Punta Algarrobo to Punta Cadena	PRWC49	Enterococcus	L
502. Punta Algarrobo to Punta Cadena	Punta Algarrobo to Punta Cadena	PRWC49	Nickel	L
503. Punta Algarrobo to Punta Cadena	Punta Algarrobo to Punta Cadena	PRWC49	pH	L

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Table 45: AU/ Parameter Combination with intermediate (moderate) and low priority to development of TMDL				
Basin	Waterbody Name	Assessment Unit ID	Parameter	Priority
504. Punta Algarrobo to Punta Cadena	Punta Algarrobo to Punta Cadena	PRWC49	Temperature	L
505. Punta Algarrobo to Punta Cadena	Punta Algarrobo to Punta Cadena	PRWC49	Turbidity	L
506. Punta Cadena to Punta Higüero	Punta Cadena to Punta Higüero	PRWC50	Copper	L
507. Punta Cadena to Punta Higüero	Punta Cadena to Punta Higüero	PRWC50	Enterococcus	L
508. Punta Cadena to Punta Higüero	Punta Cadena to Punta Higüero	PRWC50	Lead	L
509. Punta Cadena to Punta Higüero	Punta Cadena to Punta Higüero	PRWC50	Mercury	L
510. Punta Cadena to Punta Higüero	Punta Cadena to Punta Higüero	PRWC50	Nickel	L
511. Punta Cadena to Punta Higüero	Punta Cadena to Punta Higüero	PRWC50	Turbidity	L
512. Punta Higüero to Punta del Boquerón	Punta Higüero to Punta del Boquerón	PRWC51	Copper	L
513. Punta Higüero to Punta del Boquerón	Punta Higüero to Punta del Boquerón	PRWC51	Enterococcus	L
514. Punta Higüero to Punta del Boquerón	Punta Higüero to Punta del Boquerón	PRWC51	Lead	L
515. Punta Higüero to Punta del Boquerón	Punta Higüero to Punta del Boquerón	PRWC51	Mercury	L
516. Punta Higüero to Punta del Boquerón	Punta Higüero to Punta del Boquerón	PRWC51	Nickel	L
517. Punta Higüero to Punta del Boquerón	Punta Higüero to Punta del Boquerón	PRWC51	Turbidity	L
518. Punta del Boquerón to Punta Borinquén	Punta del Boquerón to Punta Borinquén	PRWC52	Copper	L
519. Punta del Boquerón to Punta Borinquén	Punta del Boquerón to Punta Borinquén	PRWC52	Turbidity	L
520. Culebra Island	Culebra Island	PRCC53	pH	L
521. Culebra Island	Culebra Island	PRCC53	Turbidity	L

Following are TMDL development status for specific segment/pollutant combination. (See Table 49).

Table 46: TMDL Development Status		
SEGMENT/POLLUTANT	SEGMENT ID	PROJECT STATUS
1. RIO BAIROA/TOTAL PHOSPHORUS	PRER14H	FINAL DRAFT
2. RÍO BAIROA/TOTAL, NITROGEN	PRER14H	FINAL DRAFT

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Table 46: TMDL Development Status		
SEGMENT/POLLUTANT	SEGMENT ID	PROJECT STATUS
3. RÍO GUAYANILLA/TOTAL, PHOSPHORUS	PRSR67A	FINAL DRAFT
4. RÍO GUAYANILLA/TOTAL, NITROGEN	PRSR67A	FINAL DRAFT
5. RÍO YAUCO/TOTAL, PHOSPHORUS	PRSR68A1	FINAL DRAFT
6. RÍO YAUCO/TOTAL, NITROGEN	PRSR68A1	FINAL DRAFT
7. RÍO GUAYABO/TOTAL, NITROGEN	PRWR94A	FINAL DRAFT
8. LAGO LA PLATA/TOTAL, PHOSPHORUS	PREL ₁ 10A1	FINAL DRAFT
9. LAGO LA PLATA/TOTAL, NITROGEN	PREL ₁ 10A1	FINAL DRAFT
10. LAGO LOIZA/TOTAL, PHOSPHORUS	PREL14A	FINAL DRAFT
11. LAGO LOIZA/TOTAL, NITROGEN	PREL14A	FINAL DRAFT
12. RÍO GRANDE DE MANATI/COPPER	PRNR8A3	FINAL DRAFT
13. RIO GRANDE DE ARECIBO/COPPER	PRNR7A2	FINAL DRAFT
14. RIO BAUTA/COPPER	PRNR8C2	FINAL DRAFT
15. RIO GUAYNABO/COPPER	PRER12B	FINAL DRAFT
16. RIO GUAYNABO/LEAD	PRER12B	FINAL DRAFT
17. RIO GRANDE DE LOIZA/COPPER	PRER14A1	FINAL DRAFT
18. RÍO GURABO/COPPER	PRER14G1	FINAL DRAFT
19. RÍO TURABO/COPPER	PRER14J	FINAL DRAFT
20. RÍO GRANDE DE AÑASCO/COPPER	PRWR83A	FINAL DRAFT
21. RIO VALENCIANO/COPPER	PRER14G2	FINAL DRAFT
22. RIO VALENCIANO/LEAD	PRER14G2	FINAL DRAFT
23. RIO CULEBRINAS/COPPER	PRWR95A	FINAL DRAFT
24. RIO DE LA PLATA/COPPER	PRER10A5	FINAL DRAFT

Implementation of the Clean Water Act 303(d) Program Vision Long – Term Vision

In December 2013, USEPA announced a new framework for implementing the Clean Water Act (CWA) Section 303(d) Program – A long-term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program. This new vision, encourage states and territories to develop tailored strategies to implementation CWA 303(d) responsibilities of their overall water quality goals and individuals states priorities.

Recognizing each State is unique, USEPA expects that States will vary in the extent to which and how they implement the goals of the Vision, depending on particular circumstances and water quality goals of the State. To support State and EPA discussions on re-orienting CWA 303(d) Program responsibilities consistent with the Vision, EPA is providing additional information for States to consider when implementing the Prioritization, Engagement and Alternative Goals. EPA and States jointly identified these topics as warranting further clarification to promote timely implementation of the Vision and submittal and review of States' 2020 Integrated Reports. EPA

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anticipates working closely with the States on these issues as States move forward with developing their Integrated Reports.

Long-term Prioritization from 2016 to 2022

Consistent with the new USEPA’s vision, PRDNER identify those AU for priority restoration and protection activities. This prioritization provides a framework to focus the location and timing for the development of, alternative restoration, protection plans and TMDLs. Those alternatives should include:

- Identification of specific impairment addressed by an alternate approach.
- Planning, development and implement effectiveness monitoring programs.
- Revisions, and amendments to the existing regulations.

Recently, PRDNER update its Non-Point Source Management Program (NPSMP). One of the most important parts of this NPSMP is the development and implementation of a Priority System. This Priority System will be used as a priority based system in the long-term vision of the assessment restoration and protection under the CWA section 303(d). The main purpose will be standardizing the priority systems and the basic criteria used for a more effective assessment of island’s water quality. In Appendix II is the Implementation of the Clean Water Act 303(d) Program Vision Long – Term Vision document. It is important to establish that this document originaly was prepare using the 2014 303(d) List.

Therefore, Table 50 Long-Term Priorities 2016 – 2022 AUs was updated using the information of 2020 303(d) List.

Table 50: Long-Term Priorities 2016 – 2022					
Water Body Name	AU ID	2020 Causes of Impairment	AREA	SQ miles	Approach
RÍO GURABO	PRER14G1	Copper, Enterococcus, Temperature, Total, Nitrogen, Total, Phosphorus, Turbidity	32512.22173	50.800346	1, 5a
RÍO GRANDE DE LOIZA	PRER14A2	Enterococcus, Lead, Pesticides, Total, Phosphorus, Turbidity	26498.345459	41.403665	1, 5a
RÍO CAGÜITAS	PRER14I	Enterococcus, , Surfactants, Total, Nitrogen, Total, Phosphorus, Turbidity	12019.471726	18.780425	1, 5a
RÍO DE LA PLATA	PRER10A1	Enterococcus, Low Dissolved Oxygen, Total, Nitrogen, Total, Phosphorus, Turbidity	6762.208267	10.56595	1, 5a

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Table 50: Long-Term Priorities 2016 – 2022					
Water Body Name	AU ID	2020 Causes of Impairment	AREA	SQ miles	Approach
RÍO CIBUCO	PRNR9A	Copper, Enterococcus, Total, Nitrogen, Total, Phosphorus, Turbidity	14250.254207	22.266022	1, 5a
RÍO GRANDE DE LOIZA	PRER14A1	Enterococcus, Total, Phosphorus, Turbidity	10851.784356	16.955913	1, 5a
RÍO DE LA PLATA	PRER10A3	Enterococcus, pH, Total, Nitrogen, Total, Phosphorus, Turbidity	12896.790193	20.151235	1, 5a
RÍO DE LA PLATA	PRER10A5	Copper, Enterococcus, Lead, pH, Total, Nitrogen, Total, Phosphorus, Turbidity	23893.320027	37.333313	1, 5a
RÍO GUAYNABO	PRER12B	Enterococcus, Low Dissolved Oxygen, Total, Nitrogen, Total, Phosphorus, Turbidity	12590.494231	19.672647	1, 5a
RÍO CULEBRINAS	PRWR95A	Enterococcus, Pesticides, Total, Nitrogen, Total, Phosphorus, Turbidity, Copper	30592.920494	47.801438	1, 5a
LAGO LA PLATA	PREL ₁ 10A1	Arsenic, Lead, Low Dissolved Oxygen, pH, Total, Nitrogen, Total, Phosphorus, Temperature, Turbidity	7938.7658	12.404322	1, 3, 4, 5a
LAGO GUAJATACA	PRNL3A1	Low Dissolved Oxygen, pH, Temperature, Total, Nitrogen, Total, Phosphorus	5824.294966	9.100461	3, 4, 5a
RÍO TURABO	PRER14J	Cadmium, Copper, Enterococcus, Lead, Temperature, Total, Phosphorus, Turbidity	19006.0409	29.696939	1, 5a
RÍO VALENCIANO	PRER14G2	Enterococcus, Total, Phosphorus, Turbidity, pH, Ammonia, Surfactants	12200.5404	19.063344	1, 5a
RÍO GRANDE DE ARECIBO	PRNR7A2	Copper, Enterococcus, Pesticides, Temperature, Total, Phosphorus, Turbidity	22446.225457	35.072227	1, 5a
RÍO GRANDE DE ARECIBO	PRNR7A1	Enterococcus, Temperature, Total, Phosphorus, Turbidity	7207.74912	11.262108	1, 5a
RÍO CIALITO	PRNR8B	Enterococcus, pH, Turbidity	10776.451776	16.838206	1, 5a
RÍO GRANDE DE MANATI	PRNR8A1	Copper, Enterococcus, Total, Nitrogen, Total, Phosphorus, Turbidity	14214.337007	22.209902	1, 5a
RÍO ROSARIO	PRWR77C	Enterococcus, Pesticides	15356.703909	23.99485	1, 5a

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Table 50: Long-Term Priorities 2016 – 2022					
Water Body Name	AU ID	2020 Causes of Impairment	AREA	SQ miles	Approach
RÍO DE LA PLATA	PRER10A4	Enterococcus, Temperature, Total, Nitrogen, Total, Phosphorus, Turbidity, pH	4187.745159	6.543352	1, 5a
RÍO HUMACAO	PRER33A	Copper, Enterococcus, Lead, Mercury, Surfactants Temperature, Total, Nitrogen, Total, Phosphorus, Turbidity, Ammonia, pH	14678.023253	22.934411	1, 5a
LAGO LOIZA	PREL14A1	Copper, Lead, Low Dissolved Oxygen, Total, Nitrogen, Total, Phosphorus, pH, Temperature, Turbidity	7928.060628	12.387595	3, 4, 5a
RÍO GRANDE DE AÑASCO	PRWR83A	Copper, Enterococcus, Total, Phosphorus, Turbidity	32194.001763	50.303128	1, 5a
LAGO DOS BOCAS	PRNL ₁ 7A1	Arsenic, Copper, Low Dissolved Oxygen, pH, Surfactants, Temperature, Total, Nitrogen, Total, Phosphorus, Turbidity	10734.480607	16.772626	1, 3, 4, 5a
RÍO BAIROA	PRER14H	Low Dissolved Oxygen, Enterococcus, Surfactants, Total, Nitrogen, Total, Phosphorus	5005.816097	7.821588	3
RÍO GUAYANILLA	PRSR67A	Ammonia, Enterococcus, Low Dissolved Oxygen, Temperature, Total, Nitrogen, Total, Phosphorus, Turbidity	16090.163506	25.14088	3
RÍO YAUCO	PRSR68A1	Low Dissolved Oxygen, Total, Phosphorus	20519.523795	32.061756	3
SAN JUAN BAY ESTUARY SYSTEM	PREE13A2	Ammonia, Enterococcus, Low Dissolved Oxygen, Oil and Grease, pH, Temperature, Total, Nitrogen, Total, Phosphorus, Turbidity, Copper, Lead, Surfactants	16626.02176	25.978159	5b

Taking in consideration the Long-term Priorities 2016 - 2022 AU's presented in 2016 Cycle the following AU/parameter combinations were delisted following the implementation of the corresponding alternative approaches. (See Table 51)

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Table 47: Assessment Units/Parameter Combinations			
AU ID	Type of water	Parameter	Reason for delisting
PRER14A1	River	Copper	Water Quality Standard met
PRER14A1	River	Dissolved Oxygen	Water Quality Standard met
PRER14J	River	pH	Water Quality Standard met
PRER14G2	River	Copper	Water Quality Standard met
PRER14G2	River	Lead	Water Quality Standard met
PRER14G2	River	Total Nitrogen	Water Quality Standard met
PRWR77C	River	Turbidity	Water Quality Standard met
PREE13A2	Estuary	pH	Water Quality Standard met

The Table 52 shows Long-Term Priorities Assessment Units/Parameter Combinations Improvement.

Table 52: Long-Term Priorities Assessment Units/Parameter Combinations Improvement					
Water Body Name	AU ID	2014 Causes of Impairment	Parameter Delisted	Cycle Delisted	2020 Cycle (2017-2019) Parameter in Improvement
RIO GURABO	PRER14G1	Copper, Cyanide, Total Coliforms, Turbidity	Cyanide	2016	
			Total Coliforms	2018	
					Copper
RIO CAONILLAS*	PRNR7C1	Arsenic, Cyanide	Arsenic	2016	
			Cyanide	2016	
RIO GRANDE DE LOIZA	PRER14A2	Cyanide, Pesticides, Total Coliforms, Turbidity	Cyanide	2016	
			Total Coliforms	2018	
					Turbidity
RIO CAGUITAS	PRER14I	Cyanide, Surfactant, Thermal Modifications, Total Coliforms, Turbidity	Cyanide	2018	
			Thermal Modification	2018	
			Total Coliforms	2018	
					Turbidity
RIO LA PLATA	PRER10A1	Cyanide, Turbidity	Cyanide	2016	
					Turbidity
RIO CIBUCO	PRNR9A	Cyanide, Total Coliforms, Turbidity	Cyanide	2016	
			Total Coliforms	2018	
RIO GRANDE DE LOIZA	PRER14A1	Copper, Cyanide, Low Dissolved Oxygen, Turbidity	Cyanide	2016	
			Low Dissolved Oxygen	2020	
			Copper	2020	
RIO ESPIRITU SANTO*	PRER16A		Copper	2016	
			Lead	2016	

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Table 52: Long-Term Priorities Assessment Units/Parameter Combinations Improvement

Water Body Name	AU ID	2014 Causes of Impairment	Parameter Delisted	Cycle Delisted	2020 Cycle (2017-2019) Parameter in Improvement
		Copper, Cyanide, Lead, Low Dissolved Oxygen, pH, Surfactants, Turbidity	Low Dissolved Oxygen	2016	
			pH	2016	
			Surfactants	2016	
			Cyanide	2016	
			Turbidity	2016	
RIO LA PLATA	PRER10A3	Cyanide, Low Dissolved Oxygen, Turbidity	Low Dissolved Oxygen	2016	
			Cyanide	2018	
					Turbidity
TÚNEL*	PRNR7A3	Cyanide	Cyanide	2016	
RIO LA PLATA	PRER10A5	Arsenic, Copper, Cyanide, Lead, Mercury, Surfactants, Turbidity	Cyanide	2016	
			Arsenic	2016	
			Surfactants	2016	
			Mercury	2018	
					Turbidity
RIO GUAYNABO	PRER12B	Cyanide, Total Coliforms, Turbidity	Cyanide	2016	
			Total Coliforms	2018	
					Turbidity
RIO CULEBRINAS	PRWR95A	Arsenic, Copper, Cyanide, Lead, Pesticides, Surfactants, Total Coliforms, Turbidity	Lead	2016	
			Surfactants	2016	
			Total Coliforms	2016	
			Cyanide	2016	
			Arsenic	2018	
LAKE LA PLATA	PREL ₁ 10A1	Arsenic, Cyanide, Low Dissolved Oxygen, Phosphorus	Cyanide	2018	
LAKE GUAJATACA	PRNL3A1	Low Dissolved Oxygen			
RIO TURABO	PRER14J	Arsenic, Copper, Cyanide, pH, Surfactants, Turbidity	Arsenic	2016	
			Surfactants	2016	
			Cyanide	2018	
			pH	2020	
RIO VALENCIANO	PRER14G2	Arsenic, Copper, Cyanide, Surfactants, Turbidity	Copper	2020	
			Arsenic	2016	
			Cyanide	2016	

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Table 52: Long-Term Priorities Assessment Units/Parameter Combinations Improvement

Water Body Name	AU ID	2014 Causes of Impairment	Parameter Delisted	Cycle Delisted	2020 Cycle (2017-2019) Parameter in Improvement
RIO GRANDE DE ARECIBO	PRNR7A2	Copper, Cyanide, Lead, Pesticides, Total Coliforms, Turbidity	Cyanide	2016	Copper
			Lead	2018	
			Total Coliforms	2018	
RIO GRANDE DE ARECIBO	PRNR7A1	Copper, Cyanide, Low Dissolved Oxygen, Turbidity	Copper	2016	Copper
			Cyanide	2018	
			Low Dissolved Oxygen	2018	
RIO CIALITO	PRNR8B	Cyanide, Total Coliforms, Turbidity	Cyanide	2016	Turbidity
			Total Coliforms	2018	
RIO GRANDE DE MANATI	PRNR8A1	Copper, Cyanide, Turbidity	Cyanide	2016	Copper
					Turbidity
RIO ROSARIO	PRWR77C	Cyanide, Pesticides, Turbidity	Cyanide	2016	Copper
			Turbidity	2020	
RIO LA PLATA	PRER10A4	Cyanide, Turbidity	Cyanide	2016	Copper
RIO HUMACAO	PRER33A	Copper, Cyanide, Lead, Surfactants, Total Coliforms, Turbidity	Cyanide	2016	Lead
			Total Coliforms	2018	Surfactants
					Copper
					Lead
LAKE LOIZA	PREL14A1	Copper, Lead, Low Dissolved Oxygen, Turbidity			Lead
RIO GRANDE DE AÑASCO	PRWR83A	Cyanide, Low Dissolved Oxygen, Turbidity	Cyanide	2016	Copper
			Low Dissolved Oxygen	2016	
LAKE DOS BOCAS	PRNL17A1	Arsenic, Copper, Cyanide, Low Dissolved Oxygen, pH, Surfactants	Cyanide	2018	Copper
					Surfactants
RIO BAIROA	PRER14H	Phosphorus			
RIO GUAYANILLA	PRSR67A	Phosphorus			
RIO YAUCO	PRSR68A1	Phosphorus			
RIO GUAYABO *	PRWR94A	Phosphorus	Phosphorus	2016	
SAN JUAN BAY ESTUARY SYSTEM	PREE13A2	Low Dissolved Oxygen, Ammonia, Oil and Grease, pH, Thermal Modification, Total Coliforms, Turbidity,	pH	2020	Copper
			Cyanide	2016	
			NO2+NO3	2016	
			Total Coliforms	2018	

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Table 52: Long-Term Priorities Assessment Units/Parameter Combinations Improvement

Water Body Name	AU ID	2014 Causes of Impairment	Parameter Delisted	Cycle Delisted	2020 Cycle (2017-2019) Parameter in Improvement
		NO2+NO3, Surfactants, Lead, Copper, Cyanide			Thermal Modification

* These AU/Parameter combinations were completely removed

Many alternatives approaches were implemented in order to achieve the overall water quality goals.

- PRDNER obtained other data and information, of water quality monitoring sampling from different government agencies and non-government entities, as part of the effort to increase the information regarding the percentage of monitored waters in PR.
- PRDNER have taken all appropriate enforcement actions against owners of sites where activities are being performed in violation of the Regulation for the Control of Erosion and Prevention of Sedimentation, the *Reglamento para el Control de los Desperdicios Fecales de Animales de Empresas Pecuarias* and the Underground Injection Control Regulation among others.
- In order to continue with the compliance and implementation of the applicable regulations, permits evaluation and inspections; compliances inspections, notification of violations and enforcement actions were carried out.
- As part of the water quality information requested from different government agencies, the DRNA is working in the development of a series of workshop to trained personnel on land use activities that could impact water bodies.

Continuing the activities and control measures will demonstrate progress over time in achieving protection and restoration of PR watersheds.

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PART F. Public Participation

Although, according to USEPA requirements of involving the public and other stakeholders in the development of the Section 303(d) List (40 CFR 130.7(a)), PRDNER can not held a public hearing, due to the COVID pandemic.

The List of Impacted Water Bodies draft for the 2020 cycle and the Assessment Methodology will be available to the public for examination, at the request of the interested party by sending an email to the following address: waterquality@jca.pr.gov, no later than thirty (30) days from the publication of the notice. The deadline for submitting comments may be extended if deemed necessary or appropriate in the public interest. All interested or affected parties may request a public hearing. Said request must be submitted in writing to the Secretary of the PRDNER through the Secretary's Office at the following email address: ayudaalciudadano@jca.pr.gov, no later than thirty (30) days from the date of publication of this notice and the reason or reasons that in the opinion of the applicant merit the holding of the public hearing must be indicated.

The public notice was appropriated published in two local newspaper of island wide circulation, PRIMERA HORA and EL NUEVO DÍA in September 11, 2020, (Public Notice in Spanish and English, Appendix III). Also, 303(d) List was circulated among PRDNER's offices including the regional offices.

The Public participation element serves to encourage the involvement of universities, private institutions, government agencies, non-government entities and general public in water quality issues.

Enclosed in Appendix IV you will find the determination of th Governing Board of PRDNER.

APENDIX I – 2020 Cycle 303(d) List

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RIVERS, STREAMS AND CREEKS

Size of waters Impaired by Causes all cycles (Monitored Miles for Rivers and Streams)	
Causes of Impairments	Size of Waters Impaired (miles)
Pesticides	544.3
Surfactants	313.4
Arsenic	25.4
Cadmium	54.7
Copper	1,192.8
Chromium VI	2,555.1
Lead	525.9
Mercury	55.8
Ammonia	364.6
Total, Phosphorus	2, 409.8
Total, Nitrogen	1,621.9
pH	805.1
Dissolved Oxygen	1,221.7
Temperature	1,147.6
Enterococcus	2,555.1
Fecal Coliforms	57.8
Oil & Grease	103.8
Turbidity	2,368.3
Silver	14.6

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2020 Cycle 303(d) List – List of Rivers and Streams

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO GUAJATACA	RÍO GUAJATACA PRNR3A1	9.9	SD	NS 50011400	5	5	5	5		H	Collection System Failure Landfill Onsite Wastewater Systems	Chromium VI	2020
												Enterococcus	2020, 2018
												Fecal Coliform	2016, 2014, 2012, 2008
												Total, Nitrogen	2020, 2018, 2016
	RÍO GUAJATACA PRNR3A2	22	SD	NS 50010600	5	5	5	5	F	H	Agriculture Collection System Failure Confined Animal Feeding Operations Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Enterococcus	2020, 2018
												Total, Nitrogen	2020, 2018, 2016
	QUEBRADA LAS SEQUIÁS PRNQ3B	3.5	SD		4a	4a	5	5	D, F, H, L	H	Confined Animal Feeding Operations Onsite Wastewater Systems	Arsenic	2006
												Dissolved Oxygen	2006
RÍO GRANDE DE ARECIBO	RIO GRANDE DE ARECIBO PRNR7A1	22.4	SD	NS 50029000	5	5	5	5	K	H	Agriculture Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Enterococcus	2020, 2018
												Temperature	2020
												Total, Phosphorus	2020, 2018
												Turbidity	2020, 2018, 2014, 2012, 2010, 2006
		122.8	SD	NS 50025000	5	5	5	5	K	H	Agriculture Collection System Failure	Chromium VI	2020
												Copper	2018, 2014

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2020 Cycle 303(d) List – List of Rivers and Streams													
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
	RÍO GRANDE DE ARECIBO PRNR7A2										Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Enterococcus Pesticide Temperature Total, Phosphorus Turbidity	2020, 2018 2008 2020 2020 2020, 2018, 2014, 2012, 2008
	TÚNEL PRNR7A3	28.9	SD	NS 50020500	5	5	5	5	K	H	Agriculture Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI Enterococcus Turbidity	2020 2020, 2018 2018
	RÍO CAONILLAS PRNR7C1	87.0	SD	NS 50026000	5	5	5	5	K	H	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Surface Mining Urban Runoff/Storm Sewers	Chromium VI Enterococcus Total, Nitrogen Total, Phosphorus Turbidity	2020 2020, 2018 2020 2020 2020

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2020 Cycle 303(d) List – List of Rivers and Streams

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
	RÍO LIMÓN PRNR7C2	40.7	SD	NS 50026350	5	5	5	5	K	H	Agriculture Minor Industrial Point Sources Onsite Wastewater Systems	Chromium VI Enterococcus Total, Nitrogen Turbidity	2020 2020, 2018 2020 2020, 2016
	RÍO YUNES PRNR7C3	32.7	SD	NS 50026950	5	5	5	5	K	H	Agriculture Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI Copper Enterococcus Temperature Total, Nitrogen Total, Phosphorus Turbidity	2020 2018 2020, 2018 2020 2020 2020, 2018 2020, 2018
	RÍO TANAMÁ PRNR7B2	43.5	SD	NS 50028000	5	5	5	5	K	H	Agriculture Collection System Failure Onsite Wastewater Systems	Chromium VI Copper Enterococcus Lead Total, Nitrogen Total, Phosphorus Turbidity	2020 2018 2020, 2018 2018 2018 2018 2018, 2014, 2012, 2008
RÍO GRANDE DE MANATÍ	RÍO GRANDE DE MANATÍ PRNR8A1	31	SD	NS 50038100	5	5	5	5	K	H	Collection System Failure Confined Animal Feeding Operations Landfill	Chromium VI Copper Enterococcus Total, Nitrogen	2020 2018 2018 2018

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2020 Cycle 303(d) List – List of Rivers and Streams													
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
											Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Total, Phosphorus Turbidity	2018, 2016 2018, 2014, 2012, 2010, 2008, 2006
	RÍO GRANDE DE MANATÍ PRNR8A2	38.1	SD	NS 50035500	5	5	5	5	K	H	Collection System Failure Confined Animal Feeding Operations Landfills Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI Copper Enterococcus Temperature Turbidity	2020 2018 2020, 2018 2020 2018, 2014, 2012, 2010, 2008, 2006
	RÍO CIALITO PRNR8B	25.8	SD	NS 50035950	5	5	5	5	K	H	Agriculture Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI Enterococcus pH Turbidity	2020 2020, 2018 2018 2018, 2014, 2012, 2010
	RÍO OROCOVIS PRNR8E1	19.8	SD	NS 50030700	5	5	5	5	K	H	Collection System Failure Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems	Chromium VI Enterococcus Total, Nitrogen Total, Phosphorus	2020 2020, 2018 2020 2020, 2018, 2016

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2020 Cycle 303(d) List – List of Rivers and Streams													
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
											Urban Runoff/Storm Sewers	Turbidity	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
	RÍO BOTIJAS PRNR8E2	19.1	SD	SPD 50030300	4a	4a	5	3	D K	H	Confined Animal Feeding Operations Onsite Wastewater Systems	pH	2020
RÍO CIBUCO	RÍO CIBUCO PRNR9A	31.1	SD	NS 50039500	5	5	5	5	A	H	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Onsite Wastewater Systems	Chromium VI	2020
												Copper	2018
												Enterococcus	2020, 2018
												Total, Nitrogen	2020, 2018, 2016
												Total, Phosphorus	2020, 2018
											Turbidity	2020, 2018, 2014, 2012, 2010, 2008, 2006	
	RÍO MOROVIS PRNR9B2	25.5	SD	SPD PR13001 PR13017	4a	4a	5	3	A D	H	Collection System Failure Confined Animal Feeding Operations Landfill Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2020, 2014
		21	SD		5	5	5	5	B	H	Collection System Failure	Chromium VI	2020

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2020 Cycle 303(d) List – List of Rivers and Streams

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO DE LA PLATA	RÍO DE LA PLATA PRER10A1			NS 50046000							Confined Animal Feeding Operations	Dissolved Oxygen	2020, 2018, 2016
											Major Industrial Point Sources	Enterococcus	2020, 2018
											Minor Municipal Point Sources	Temperature	2020
											Onsite Wastewater Systems	Total, Nitrogen	2018, 2016
											Surfaces Mining	Total, Phosphorus	2018
												Turbidity	2018
	RÍO DE LA PLATA PRER10A3	55.7	SD	NS 50044000	5	5	5	5	B	H	Agriculture	Chromium VI	2020
											Collection System Failure	Enterococcus	2020, 2018
											Confined Animal Feeding Operations	pH	2020
											Landfill	Total, Nitrogen	2018
											Major Municipal Point Sources	Total, Phosphorus	2018, 2016
											Onsite Wastewater Systems	Turbidity	2018, 2014, 2012, 2010
	RÍO DE LA PLATA PRER10A4	10.2	SD	NS 50043000	5	5	5	5	B	H	Agriculture	Chromium VI	2020
											Confined Animal Feeding Operations	Enterococcus	2020, 2018
											Landfill	pH	2020
											Minor Industrial Point Sources	Temperature	2020
											Onsite Wastewater Systems	Total, Nitrogen	2018
												Total, Phosphorus	2020, 2018, 2016
	Turbidity	2020, 2018, 2016, 2014, 2010, 2008											

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Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
	RÍO DE LA PLATA PRER10A5	92.7	SD	NS 50042500	5	5	5	5	B	H	Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban/Runoff/Storm Sewers	Chromium VI	2020
												Copper	2020
												Enterococcus	2020, 2018
												Lead	2020
												pH	2020
												Total, Nitrogen	2018
												Total, Phosphorus	2020, 2018, 2016
Turbidity	2018, 2014, 2006												
	RÍO GUADIANA PRER10E	21.8	SD	NS 50044850	5	5	5	5	B	H	Collection System Failure Confined Animal Feeding Operations Minor Municipal Point Sources Onsite Wastewater Systems	Chromium VI	2020
												Enterococcus	2020, 2018
												Total, Nitrogen	2018, 2016
												Total, Phosphorus	2020, 2018, 2016
												Turbidity	2018, 2016, 2014, 2012, 2010, 2008
	RÍO ARROYATA PRER10G	36.8	SD	NS 50043998	5	5	5	5	B	H	Agriculture Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems	Chromium VI	2020
												Dissolved Oxygen	2018
												Enterococcus	2020, 2018
												Total, Phosphorus	2020, 2018, 2016
												Turbidity	2018, 2014
	RÍO MATÓN	15.8	SD	NS	5	5	5	5	B	H		Chromium VI	2020

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Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
	PRER10J			50042800							Confined Animal Feeding Operations Onsite Wastewater Systems	Enterococcus pH Total, Nitrogen Total, Phosphorus	2020, 2018 2020 2020 2020
	RÍO GUAVATE PRER10K	19.8		SPD PR1161	4a	4a	5	3	B D	H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	pH	2020, 2012
RÍO HONDO	RÍO HONDO PRER11A	22	SD		4a	4a	5	3	D F H	H	Collection System Failure Urban Runoff/Storm Sewers	Dissolved Oxygen Surfactants	2016, 2014, 2008, 2006 2016, 2008, 2006
RÍO BAYAMÓN	RÍO BAYAMÓN PRER12A1	33.6	SD	NS 50048510	5	5	5	5	F	H	Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Ammonia Chromium VI Enterococcus pH Total, Nitrogen Total, Phosphorus Turbidity	2020 2020 2020, 2018 2020 2020 2018, 2016 2018, 2014, 2010
	RÍO BAYAMÓN PRER12A2	83.7	SD	NS 50047820	5	5	5	5	F	H	Collection System Failure Confined Animal Feeding Operations	Chromium VI Enterococcus Total, Nitrogen	2020 2020, 2018 2018

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Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
											Landfill Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Total, Phosphorus	2018
RÍO GUAYNABO PRER12B	RÍO GUAYNABO PRER12B	50.7	SD	NS 50047990	5	5	5	5	F	H	Collection System Failure Confined Animal Feeding Operations Landfill Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Dissolved Oxygen	2020
												Enterococcus	2020, 2018
												Total, Nitrogen	2018, 2016
												Total, Phosphorus	2020, 2018, 2016
Turbidity	2018, 2016, 2014, 2012, 2010, 2008, 2006												
RÍO GRANDE DE LOIZA	RÍO GRANDE DE LOIZA PRER14A1	31	SD	NS 50059100	5	5	5	5	F	H	Collection System Failure Confined Animal Feeding Operations Major Industrial Point Sources Onsite Wastewater Systems Surfaces Mining Urban Runoff/Storm Sewers	Chromium VI	2020
												Enterococcus	2018
												Total, Phosphorus	2020, 2016
												Turbidity	2020, 2018, 2016, 2014, 2010, 2008, 2006
RÍO GRANDE DE LOIZA PRER14A2	RÍO GRANDE DE LOIZA PRER14A2	86.6	SD	NS 50055000	5	5	5	5	C E G	H	Agriculture Collection System Failure	Copper	2020
												Chromium VI	2020
												Enterococcus	2020, 2018

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Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
											Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Surfaces Mining Urban Runoff/Storm Sewers	Lead Pesticides Total, Phosphorus Turbidity	2018 2008 2018, 2016 2018
	RÍO CANÓVANAS PRER14B	32.6	SD		4a	4a	5	3	D F H	H	Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2016
	RÍO CANOVANILLAS PRER14C	27.9	SD		4a	4a	5	3	D F H	H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2016, 2014
	RÍO GURABO PRER14G1	124.3	SD	NS 50057025	5	5	5	5	C E	H	Collection System Failure Confined Animal Feeding Operations Landfills Minor Industrial Point Sources Onsite Wastewater Systems Surfaces Mining	Chromium VI Copper Enterococcus Temperature Total, Nitrogen Total, Phosphorus	2020 2018, 2016, 2014, 2010, 2006 2020, 2018 2020 2020, 2018 2020, 2018, 2016

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Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
												Turbidity	2020, 2018, 2014, 2012, 2010, 2008, 2006
	RÍO VALENCIANO PRER14G2	42.8	SD	NS 50056500	5	5	5	5	C	H	Agriculture Collection System Failure Confined Animal Feeding Operations Landfills Onsite Wastewater Systems Urban Runoff/Storm Sewers	Ammonia Chromium VI Enterococcus pH Surfactants Total, Phosphorus Turbidity	2020 2020 2020, 2018 2020 2020 2020, 2018, 2016 2018, 2016, 2014, 2006
	RÍO BAIROA PRER14H	16.3	SD	NS 50055410	5	5	5	5	C E G I	H	Collection System Failure Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI Enterococcus Surfactants Total, Nitrogen Total, Phosphorus	2020 2020, 2018 2018 2018, 2016 2020, 2018, 2016, 2014, 2012, 2010, 2008
	RÍO CAGÜITAS PRER14I	33.9	SD	NS 50055250	5	5	5	5	C E G I	H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Surfaces Mining	Chromium VI Enterococcus Surfactants Total, Nitrogen	2020 2020, 2018 2020 2020, 2018, 2016

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Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
											Urban Runoff/Storm Sewers	Total, Phosphorus	2020, 2018, 2016
												Turbidity	2018, 2014, 2010, 2008
	RÍO TURABO PRER14J	54.7	SD	NS 50054500	5	5	5	5	C	H	Agriculture Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Cadmium	2018
												Chromium VI	2020
												Copper	2018, 2014
												Enterococcus	2020, 2018
												Lead	2018
												Temperature	2020
												Total, Phosphorus	2018
												Turbidity	2018, 2014, 2006
	RÍO CAYAGUAS PRER14K	38.5	SD	NS 50051500	5	5	5	5	C	H	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	Chromium VI	2020
												Copper	2018
												Enterococcus	2020, 2018
												Lead	2018
												Total, Phosphorus	2018, 2016
												Turbidity	2018
RÍO HERRERA	RÍO HERRERA PRER15A	17	SD		4a	4a	5	5	D F H	M	Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2016, 2006
												Turbidity	2014, 2012
		53.9	SD		5	5	5	5	F	M	Collection System Failure	Chromium VI	2020

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Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO ESPIRITU SANTO	RÍO ESPÍRITU SANTO PRER16A			NS 50063800							Confined Animal Feeding Operations Landfill Onsite Wastewater Systems	Enterococcus	2020, 2018
												Total, Nitrogen	2018
QUEBRADA MATA DE PLÁTANO	QUEBRADA MATA DE PLÁTANO PREQ18A	4.0	SD		4a	4a	5	3	D F H	M	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2016, 2014, 2012, 2006
												Surfactants	2016, 2012
QUEBRADA FAJARDO	QUEBRADA FAJARDO PREQ21A	10.0	SD	SPD 50069410	4a	4a	5	3	D J	M	Collection System Failure Onsite Wastewater Systems	Dissolved Oxygen	2020, 2006
												pH	2020, 2018
												Temperature	2020
RÍO FAJARDO	RÍO FAJARDO PRER22A	59.0	SD	NS 50072500	5	5	5	5	J	M	Confined Animal Feeding Operations Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Dissolved Oxygen	2018, 2014, 2012
												Enterococcus	2020, 2018
												Temperature	2020
												Total, Nitrogen	2020, 2018, 2016
												Total, Phosphorus	2020, 2018, 2016
Turbidity	2018, 2016, 2012, 2010, 2008, 2006												

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Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO DEMAJAGUA	RÍO DEMAJAGUA PRER23A	2.8	SD	SPD 50072700	4a	4a	5	3	D J	M	Onsite Wastewater Systems	Dissolved Oxygen	2020, 2016, 2012
QUEBRADA CEIBA	QUEBRADA CEIBA PREQ24A	5.0	SD		4a	4a	5	3	D H J	M M	Onsite Wastewater Systems	Dissolved Oxygen	2016, 2014, 2012, 2006
												Surfactants	2016, 2014, 2012
QUEBRADA AGUAS CLARAS	QUEBRADA AGUAS CLARAS PREQ25A	4.8	SD	SPD 50072900	4a	4a	5	3	D J	M	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2020, 2012, 2006
RÍO DAGUAO	RÍO DAGUAO PRER26A	13.8	SD		4a	4a	5	3	D H J	M	Confined Animal Feeding Operations Onsite Wastewater Systems	Dissolved Oxygen	2016, 2012, 2006
QUEBRADA BOTIJAS	QUEBRADA BOTIJAS PREQ28A	7.4	SD	SPD 50073500	4a	4a	5	3	D J	M	Confined Animal Feeding Operations Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2012, 2006
RÍO BLANCO	RÍO BLANCO PRER30A	45.0	SD	SPD 50077600	4a	4a	5	5	D J	H	Agriculture Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Turbidity	2020, 2012
	QUEBRADA PEÑA POBRE PREQ30B	13.4	SD	SPD 50076300	4a	4a	5	3	D J	H	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2006

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Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO ANTÓN RUIZ	RÍO ANTÓN RUIZ PRER31A	16.9	SD	SPD 50078510	4a	4a	5	3	D J	M	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	Dissolved Oxygen	2020, 2014, 2016, 2012
												Temperature	2020
QUEBRADA FRONTERA	QUEBRADA FRONTERA PREQ32A	8.5	SD	SPD 50078900	4a	4a	5	3	D J	M	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems	Dissolved Oxygen	2020, 2012, 2006
RÍO HUMACAO	RÍO HUMACAO PRER33A	55.8	SD	NS 50082000	5	5	5	5	F	M	Collection System Failure Confined Animal Feeding Operations Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	Ammonia	2020
												Chromium VI	2020
												Copper	2018, 2014
												Enterococcus	2020, 2018
												Lead	2018, 2014
												Mercury	2020, 2018
												pH	2020
												Surfactants	2018, 2014, 2010, 2008
												Temperature	2020
												Total, Nitrogen	2020, 2018
Total, Phosphorus	2020, 2018, 2016												
Turbidity	2020, 2018, 2016, 2014, 2012, 2008, 2006												

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Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO CANDELERO	RÍO CANDELERO PRER34A	10.4	SD	SPD 50082700	4a	4a	5	3	D F	M	Onsite Wastewater Systems Confined Animal Feeding Operations	Dissolved Oxygen	2020, 2018, 2012
RÍO GUAYANÉS	RÍO GUAYANÉS PRER35A	62.0	SD	NS 50085000	5	5	5	5	F	M	Agriculture Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems	Chromium VI	2020
												Copper	2020, 2016, 2014, 2012, 2006
												Enterococcus	2020, 2018
												Lead	2020, 2016, 2014, 2006
												pH	2020, 2016, 2014
												Total, Phosphorus	2020
RÍO MAUNABO	RÍO MAUNABO PRER37A	36.0	SD	NS 50091000	5	5	5	5	F	M	Agriculture Collection System Failure Landfill Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewer	Chromium VI	2020
												Enterococcus	2020, 2018
												Temperature	2020
												Total, Nitrogen	2020, 2016
												Total, Phosphorus	2020, 2016
												Turbidity	2020
QUEBRADA PALENQUE	QUEBRADA PALENQUE	1.0	SD		4a	4a	5	3	D H	M	Onsite Wastewater Systems	Dissolved Oxygen	2012

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2020 Cycle 303(d) List – List of Rivers and Streams

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
	PRSQ41A								J, L				
RÍO CHICO	RÍO CHICO PRSR42A	14.6	SD		4a	4a	5	5	D H J L	M	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	Ammonia	2016, 2014, 2012, 2006
												Copper	2016, 2006
												Dissolved Oxygen	2016, 2012, 2006
												Silver	2004
												Surfactants	2016, 2006
												Total, Phosphorus	2016, 2006
RÍO GRANDE DE PATILLAS	RÍO GRANDE DE PATILLAS PRSR43A2	35.9	SD	NS 50092000	5	5	5	1	J	H	Onsite Wastewater Systems	Chromium VI	2020
												Enterococcus	2020, 2018
												pH	2020
RÍO GUAMANÍ	RÍO GUAMANÍ PRSR49A	22.0	SD		4a	4a	5	3	D H J L	M	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	Temperature	2012
QUEBRADA MELANÍA	QUEBRADA MELANÍA PRSQ50A	7.0	SD	SPD 50096010	4a	4a	5	3	D J L	M	Landfill Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2008
RÍO SECO	RÍO SECO PRSR51A	24.7	SD		4a	4a	5	3	D, H J, L	M	Agriculture Onsite Wastewater Systems	Dissolved Oxygen	2012
QUEBRADA AMORÓS		0.7	SD	SPD 50098600	4a	4a	5	3	D J	M	Agriculture Collection System Failure	Dissolved Oxygen	2020, 2012, 2008

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2020 Cycle 303(d) List – List of Rivers and Streams

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
	QUEBRADA AMORÓS PRSQ52A								L		Onsite Wastewater Systems	pH	2020
QUEBRADA AGUAS VERDES	QUEBRADA AGUAS VERDES PRSQ53A	15.0	SD	SPD 50099400	4a	4a	5	3	D F L	M	Confined Animal Feeding Operations Onsite Wastewater Systems	Dissolved Oxygen	2020, 2016, 2014, 2012
RÍO NIGUAS DE SALINAS	RÍO NIGUAS DE SALINAS PRSR54A	102.5	SD		4a	4a	5	3	D F H L	M	Confined Animal Feeding Operations Onsite Wastewater Systems Surfaces Mining Urban Runoff/Storm Sewers	Dissolved Oxygen	2010
RÍO CAYURES	RÍO CAYURES PRSR56A	5.0	SD		4a	4a	5	3	D H J L	M	Agriculture Onsite Wastewater Systems	Surfactants	2016, 2014, 2012
												Dissolved Oxygen	2016, 2014, 2012
RÍO COAMO	RÍO COAMO PRSR57A2	59.0	SD	NS 50106500	5	5	5	5	J	H	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Enterococcus	2020, 2018
												pH	2020
												Total, Nitrogen	2020, 2016
												Total, Phosphorus	2018
	RÍO CUYÓN PRSR57B	49.2	SD	SPD 50106000	4a	4a	5	3	D J	H	Agriculture	Temperature	2020

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2020 Cycle 303(d) List – List of Rivers and Streams

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
											Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers		
RÍO BUCANÁ-CERRILLOS	RÍO BUCANÁ-CERRILLOS PRSR62A1	27.8	SD	NS 50114400	5	5	5	5	J	M	Collection System Failure Onsite Wastewater Systems Surfaces Mining Urban Runoff/Storm Sewers	Chromium VI	2020
												Dissolved Oxygen	2020, 2018
												Enterococcus	2020, 2018
												Temperature	2020
												Total, Phosphorus	2018
												Turbidity	2018
RÍO BUCANÁ-CERRILLOS PRSR62A2	RÍO BUCANÁ-CERRILLOS PRSR62A2	32.6	SD	NS 50113800	5	5	5	5	J	M	Agriculture Minor Industrial Point Sources Onsite Wastewater Systems	Chromium VI	2020
												Enterococcus	2020, 2018
												pH	2020
												Total, Phosphorus	2020
												Turbidity	2020
RÍO PORTUGUÉS	RÍO PORTUGUÉS PRSR63A	54.0	SD	NS 50116200	5	5	5	5	J	M	Collection System Failure Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Ammonia	2018
												Chromium VI	2020
												Enterococcus	2020, 2018
												Temperature	2020
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018

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2020 Cycle 303(d) List – List of Rivers and Streams													
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
												Turbidity	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
RÍO MATILDE – PASTILLO	RÍO MATILDE – PASTILLO PRSR64A	43.2	SD	SPD 50119000	4a	4a	5	3	D J L	M	Agriculture Collection System Failure Confined Animal Feeding Operations Landfills Onsite Wastewater Systems Urban Runoff/Storm Sewers	Temperature	2020
RÍO TALLABOA	RÍO TALLABOA PRSR65A	59.6	SD	SPD 50122050	4a	4a	5	1	D J L	M	Agriculture Collection System Failure Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	pH	2020
												Temperature	2020
RÍO GUAYANILLA	RÍO GUAYANILLA PRSR67A	60.0	SD	NS 50124700	5	5	5	5	F	H	Agriculture Collection System Failure Landfill Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Ammonia	2020, 2018, 2014
												Chromium VI	2020
												Dissolved Oxygen	2020, 2016, 2014, 2012, 2008
												Enterococcus	2020, 2018
												Temperature	2020
Total, Nitrogen	2020, 2018, 2016												

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2020 Cycle 303(d) List – List of Rivers and Streams													
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
												Total, Phosphorus	2020, 2018, 2016, 2012, 2010, 2008
												Turbidity	2020
RÍO YAUCO	RÍO YAUCO PRSR68A1	61.4	SD		4a	4a	5	5	D F H L	M	Agriculture Collection System Failure Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2014
												Total, Phosphorus	2016, 2012
RÍO LOCO	RÍO LOCO PRSR69A1	92.4	SD	SPD 50129600	4a	4a	5	5	D F	M	Agriculture Collection System Failure Confined Animal Feeding Operation Landfills Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2020, 2016, 2014, 2012, 2006
												Temperature	2020
												Turbidity	2020
QUEBRADA ZUMBÓN	QUEBRADA ZUMBÓN PRWQ72A	1.7	SD		4a	4a	5	3	D H J, L	M	Collection System Failure Onsite Wastewater Systems	Dissolved Oxygen	2016, 2014
												Surfactants	2012
QUEBRADA GONZÁLEZ	QUEBRADA GONZÁLEZ PRWQ73A	1.8	SD	SPD 50130100	4a	4a	5	3	D J L	M	Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2012

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2020 Cycle 303(d) List – List of Rivers and Streams

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
QUEBRADA LOS PAJARITOS	QUEBRADA LOS PAJARITOS PRWQ74A	2.7	SD	SPD 50130150	4a	4a	5	3	D J L	M	Onsite Wastewater Systems	Dissolved Oxygen	2020, 2012
RÍO GUANAJIBO	RÍO GUANAJIBO PRWR77A	119.3	SD	NS 50138000	5	5	5	5	F	H	Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Dissolved Oxygen	2020
												Enterococcus	2020, 2018
												Total, Phosphorus	2020, 2018, 2016
												Turbidity	2018, 2016, 2014, 2012, 2010, 2008
RÍO ROSARIO	RÍO ROSARIO PRWR77C	58.3	SD	NS 50136700	5	5	5	5	F	H	Agriculture Collection System Failure Confined Animal Feeding Operations Landfills Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Enterococcus	2020, 2018
												Pesticides	2012
RÍO VIEJO	RÍO VIEJO PRWR77D	21.1	SD	NS 50135625	5	5	5	5	F	H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Dissolved Oxygen	2020, 2018, 2016, 2014, 2012
												Enterococcus	2020, 2018

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2020 Cycle 303(d) List – List of Rivers and Streams													
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
												Total, Phosphorus	2020, 2018, 2016
												Turbidity	2020, 2018, 2016
	RÍO CUPEYES PRWR77G	8.0	SD		4a	4a	5	5	D F H	H	Agriculture Onsite Wastewater Systems Urban Runoff/Storm Sewers	Pesticides	2012
CAÑO MERLE	CAÑO MERLE PRWK78A	1.6	SD		4a	4a	5	3	D H J L	M	Collection System Failure Surfaces Mining Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2012
												Surfactants	2012
RÍO YAGÜEZ	RÍO YAGÜEZ PRWR79A	42.2	SD	NS 50139000	5	5	5	1	J	H	Agriculture Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Package Plant (Small Flow) Urban Runoff/Storm Sewers	Chromium VI	2020
												Enterococcus	2020, 2018
RÍO GRANDE DE AÑASCO	RÍO GRANDE DE AÑASCO PRWR83A	126.0	SD	NS 50146000	5	5	5	5	K	H	Agriculture Collection System Failure Confined Animal Feeding Operations Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Copper	2018, 2016
												Enterococcus	2020, 2018
												Total, Phosphorus	2018, 2016
												Turbidity	2020, 2018, 2016, 2014, 2012, 2010

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2020 Cycle 303(d) List – List of Rivers and Streams

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
	RÍO PRIETO PRWR83I	59.8	SD		4a	4a	5	5	D H K	H	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	Pesticides	2012
QUEBRADA LOS RAMOS	QUEBRADA LOS RAMOS PRWQ89A	6.9	SD	SPD 50146155	3	3	5	3	D L	L	Confined Animal Feeding Operations Landfill Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2012, 2008
QUEBRADA PILETAS	QUEBRADA PILETAS PRWQ91A	2.0	SD		3	3	5	3	D H L	L	Onsite Wastewater Systems	Dissolved Oxygen	2012
RÍO CULEBRINAS	RÍO CULEBRINAS PRWR95A	142.6	SD	NS 50149100	5	5	5	5	K	H	Agriculture Collection System Failure Confined Animal Feeding Operations Landfill Major Municipal Point Sources Minor Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Chromium VI	2020
												Copper	2020
												Enterococcus	2020, 2018
												Pesticides	2012
												Total, Nitrogen	2018
												Total, Phosphorus	2020, 2018
Turbidity	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006												
	QUEBRADA LA SALLE PRWQ95F	11.8	SD		4a	4a	5	5	D H K	H	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	Pesticides Dissolved Oxygen	2012 2016

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2020 Cycle 303(d) List – List of Rivers and Streams

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (miles)	Class	2020 Monitoring Stations NS = Network SPD = Special Project Delisting	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
	QUEBRADA EL SALTO PRWQ95G	7.8	SD	SPD 50147630	4a	4a	5	3	D K	H	Agriculture Onsite Wastewater Systems	Dissolved Oxygen	2020, 2016
	QUEBRADA GRANDE DE LA MAJAGUA PRWQ95H	5.6	SD		4a	4a	5	5	D H K	H	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems	Pesticides	2012

Notes:

- A** - Watershed that has an approved TMDL for Río Cibuco, the TMDL was approved on September 2002, the pollutant was Fecal Coliforms.
- B** - Watershed that has an approved TMDL for Río de la Plata, the TMDL was approved on September 2003, the pollutant was Fecal Coliforms.
- C** - Watershed that has an approved TMDL for Río Grande de Loíza, the TMDL was approved on September 2007, the pollutant was Fecal Coliforms.
- D** - Watershed and sub watershed that do not have a permanent monitoring station but were included in prior cycles as part of the 303(d) list by a synoptic study or a special monitoring project.
- E** - Watershed that has an approved TMDL for Río Grande de Loíza a TMDL was approved on August 2007, the pollutant was Dissolved Oxygen.
- F** - Watersheds that have approved TMDL on September 2012, the pollutant was Fecal Coliforms.
- G** - Watershed that has an approved TMDL. Río Grande de Loíza, the TMDL was approved on August 2007, the pollutant was Copper.
- H** - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle.
- I** - Watershed that has approved TMDL from Río Grande de Loíza, a TMDL was approved on August 2007, the pollutant was Ammonia.
- J** - Watersheds that have approved TMDL on September 2011, the pollutant was Fecal Coliform.
- K** - Watersheds that have an approved TMDL on September 2010, the pollutant was Fecal Coliforms. The watersheds are Río Grande de Arcibo, Río Grande de Manatí, Río Grande de Añasco and Río Culebrinas.
- L** - Watershed and sub watersheds who are or have been under Category 4c, are waterbodies that lack adequate flow, which impaired some of the designated uses.
- R1** - Primary Contact Recreation
- R2** - Secondary Contact Recreation
- AL** - Aquatic Life
- DW** - Raw Sources for Drinking Water
- N/A** - Not applicable
- Priority: H:** High Priority: basins including in the Puerto Rico Unified Watershed Assessment and Restoration Activities (PRUWARA), as basins of priority due to the high pollution level related to all the designated uses.
- M:** Intermediate Priority: basins that were not including in the PRUWARA and have 50% or more of its waters as impaired for some designated use.
- L:** Low Priority: basins that were not including in the PRUWARA and have less than 50% of its waters as impaired for some designated use.

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ESTUARY

Size of waters Impaired by Causes (Monitored Acres for Estuaries)	
Causes of Impairments	Size of Waters Impaired (mi ²)
Surfactants	1.0130
Arsenic	0.0364
Dissolved Oxygen	1.1210
Temperature	0.0780
Turbidity	0.2932

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2020 Cycle 303(d) List – List of Estuaries													
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessments cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size mi ²	Class	2020 Monitoring Stations	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO HERRERA PRER15A	RÍO HERRERA PREE15A	0.102	SB		4a	4a	5	N/A	D F, H	M	Landfill Onsite Wastewater Systems	Surfactants	2012
RÍO ESPÍRITU SANTO PRER16A	RÍO ESPÍRITU SANTO PREE16A	0.5758	SB		4a	4a	5	N/A	D F H	M	Collection System Failure Onsite Wastewater Systems	Surfactants Dissolved Oxygen	2012 2012, 2006
RÍO DEMAJAGUA PRER23A	RÍO DEMAJAGUA PREE23A	0.0028	SB		4a	4a	5	N/A	D H J	M	Collection System Failure Urban Runoff/Storm Sewers	Turbidity	2012
RÍO CANDELERO PRER34A	RÍO CANDELERO PREE34A	0.078	SB		4a	4a	5	N/A	D F H	M	Collection System Failure	Dissolved Oxygen Temperature	2006 2012
RÍO GUAYANÉS PRER35A	RÍO GUAYANÉS PREE35A	0.0364	SB		4a	4a	5	N/A	F H	M	Agriculture Collection System Failure Onsite Wastewater Systems	Arsenic Turbidity	2010, 2008, 2006 2010
CAÑO SANTIAGO PREK35.1	CAÑO SANTIAGO PREE35.1	0.1152	SB		4a	4a	5	N/A	D F H	M	Agriculture Collection System Failure Landfill Major Municipal Point Sources Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Surfactants Dissolved Oxygen Turbidity	2012 2012, 2006 2012
RÍO MATILDE-PASTILLO PRSR64A	RÍO MATILDE-PASTILLO PRSE64A	0.0432	SB		4a	4a	5	N/A	D H J, L	M	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Turbidity	2012
RÍO TALLABOA PRSR65A	RÍO TALLABOA PRSE65A	0.0336	SB		4a	4a	5	N/A	D H J, L	M	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Turbidity	2012
CAÑO MERLE	CAÑO MERLE	0.158	SB		4a	4a	5	N/A	D	M	Collection System Failure	Surfactants	2014

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2020 Cycle 303(d) List – List of Estuaries													
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessments cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size mi ²	Class	2020 Monitoring Stations	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
PRWK78A	PRWE78A								H J, L				
CAÑO BOQUILLA PRWK82A	CAÑO BOQUILLA PRWE82A	0.062	SB		3	3	5	N/A	D, H, L	L	Onsite Wastewater Systems	Surfactants	2012
												Dissolved Oxygen	2012
												Turbidity	2012
QUEBRADA GRANDE DE CALVACHE PRWQ88A	QUEBRADA GRANDE DE CALVACHE PRWE88A	0.002	SB		4a	4a	5	N/A	D H L O	M	Urban Runoff/Storm Sewers	Dissolved Oxygen	2016, 2012, 2008
RÍO GUAYABO PRWR94A	RÍO GUAYABO PRWE94A	0.0288	SB		4a	4a	5	N/A	D H J	M	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2012, 2008

Notes:

D - Watershed and sub watershed that do not have a permanent monitoring station but were included in prior cycles as part of the 303(d) list by a synoptic study or a special monitoring project.

F - Watersheds that have approved TMDL on September 2012, the pollutant was Fecal Coliforms.

H - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle.

J - Watersheds that have approved TMDL on September 2011, the pollutant was Fecal Coliform.

L - Watershed and sub watersheds who are or have been under Category 4c, are waterbodies that lack adequate flow, which impaired some of the designated uses.

O - Watershed that have approved TMDL on February 2012, the pollutant was Fecal Coliforms.

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life

DW - Raw Source for Drinking Water

N/A- Not applicable

Priority: M: Intermediate Priority: basins that were not including in the PRUWARA and have 50% or more of its waters as impaired for some designated use.

L: Low Priority: basins that were not including in the Puerto Rico Unified Watershed Assessment and Restoration Activities (PRUWARA) and have less than 50% of its waters as impaired for some designated use.

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SAN JUAN BAY ESTUARY

Size of waters Impaired by Causes San Juan Bay Estuary System	
Causes of Impairments	Size of Waters Impaired (mi², miles)
Surfactants	3.8340 mi ² , 18.8 mi
Arsenic	18.8 mi
Copper	0.1009 mi ² , 18.8 mi
Chromium	3.8340 mi ²
Lead	0.1009 mi ² , 18.8 mi
Mercury	18.8 mi
Selenium	18.8 mi
Ammonia	3.8340 mi ²
Total, Nitrogen	3.8340 mi ²
Total, Phosphorous	3.8340 mi ² , 18.8 mi
pH	3.7331 mi ² , 18.8 mi
Dissolved Oxygen	3.8340 mi ² , 18.8 mi
Temperature	3.8340 mi ² , 18.8 mi
Enterococcus	3.8340 mi ² , 18.8 mi
Fecal Coliforms	3.7331 mi ²
Oil and Grease	3.8340 mi ² , 18.8 mi
Turbidity	3.8340 mi ² , 18.8 mi

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2020 Cycle 303(d) List – List of San Juan Bay Estuary System

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (mi ² , miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
ESTUARY SYSTEM	PREE13A1 Caño Control de La Malaria Bahía de San Juan Caño San Antonio Laguna Del Condado Península La Esperanza	18.8 miles		ED-BSJ 1, 2, 3 LC 1, 2 CSA La Malaria PLE	5	5	5	N/A	F M	M	Collection System Failure Confined Animal Feeding Operations Major Industrial Point Sources Major Municipal Point Sources Marinas and Recreational Boating Minor Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Surfactants	2006
												Arsenic	2006
												Copper	2006
												Lead	2006
												Mercury	2006
												Selenium	2006
												Total, Phosphorus	2018
												pH	2018, 2016, 2014, 2012, 2006
												Dissolved Oxygen	2018, 2016, 2014, 2012, 2010, 2006
												Temperature	2018, 2016, 2014, 2006
Enterococcus	2018, 2016, 2014, 2012												
Oil & Grease	2018, 2016, 2014, 2012, 2010												
Turbidity	2018, 2016, 2014, 2012, 2010												
	PREE13A2 Río Piedras Lago Las Curías	0.1009 mi ²		NS 89027 50049100	5	5	5	5	F M	H	Collection System Failure Confined Animal Feeding Operations Landfill	Surfactants	2020
Copper												2020	
Chromium VI												2020	
Lead												2020	

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2020 Cycle 303(d) List – List of San Juan Bay Estuary System

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (mi ² , miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles			
					R1	R2	VA	AP								
				ED-RP 01, 02, 03 RPN Lago Las Curias							Urban Runoff/Storm Sewers	Ammonia	2020, 2014, 2012, 2010, 2008, 2006			
												Total, Phosphorus	2020, 2018, 2016			
												Total, Nitrogen	2020, 2018, 2016			
												Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006			
												Temperature	2018, 2016, 2014			
												Enterococcus	2020, 2018			
												Oil & Grease	2018, 2016, 2014, 2012, 2010			
												Turbidity	2020, 2018, 2014, 2012, 2010, 2008, 2006			
	PREE13A3 Caño Martín Peña Quebrada Juan Méndez Quebrada San Antón Quebrada	3.7331 mi ²	SD	NS 50050300	5	5	5	N/A	M	H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	Surfactants	2020, 2016			
														Chromium VI	2020	
							ED - CS 1, 2 CMP LSJ 1, 2 Blasina San Antón								Ammonia	2020, 2018, 2016
															Total, Phosphorus	2020, 2018, 2016
															Total, Nitrogen	2020, 2018, 2016

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2020 Cycle 303(d) List – List of San Juan Bay Estuary System

Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.

Basin	Waterbody Name	Waterbody Size (mi ² , miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
	Blasina Canal Machicote Canal Suárez Laguna San José Laguna Torrecillas Laguna de Piñones Laguna Los Corozos			Laguna Los Corozos Laguna Torrecillas 1, 2, 3							pH	2018, 2016, 2014, 2012, 2010, 2006	
											Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006	
											Temperature	2018, 2016, 2014, 2012	
											Fecal Coliform	2016, 2014, 2012, 2010, 2008, 2006	
											Enterococcus	2020, 2018, 2014, 2012	
											Oil & Grease	2018, 2016, 2014, 2012, 2010	
											Turbidity	2018, 2016, 2014, 2012, 2010, 2006	

Notes:

F - Watersheds that have approved TMDL on September 2012, the pollutant was Fecal Coliforms.

M- External Data

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life **DW** - Raw Sources for Drinking Water

N/A - Not applicable

Priority: H: High Priority: basins including in the Puerto Rico Unified Watershed Assessment and Restoration Activities (PRUWARA), as basins of priority due to the high pollution level related to all the designated uses.

M: Intermediate Priority: basins that were not including in the PRUWARA and have 50% or more of its waters as impaired for some designated use.

L: Low Priority: basins that were not including in the PRUWARA and have less than 50% of its waters as impaired for some designated use.

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LAGOONS

Size of waters Impaired by Causes (Monitored Acres for Lagoons)	
Causes of Impairments	Size of Waters Impaired (mi ²)
Copper	2.6172
pH	1.2703
Dissolved Oxygen	3.8781
Temperature	0.4016
Enterococcus	0.5250
Turbidity	1.4344

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2020 Cycle 303(d) List – List of Lagoons												
Note: The 2020 303(d) List is comprised of the impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, and 2008.												
Waterbody Name	AU - ID	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA					
LAGUNA JOYUDAS	PRWN0005	0.5297	SB		4a	4a	5	H J	M	Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	Copper	2014
											Dissolved Oxygen	2014
LAGUNA TORTUGUERO	PRNN0006	0.8656	SB		3	3	5	H	L	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Dissolved Oxygen	2014, 2012
LAGUNA MATA REDONDA	PRNN0007	0.0234	SB		3	3	5	H	L	Urban Runoff/Storm Sewers	pH	2014
											Dissolved Oxygen	2014
LAGUNA AGUAS PRIETAS	PREN0011	0.2	SB		3	3	5	H	L	Unknown Source	Copper	2014
											Dissolved Oxygen	2014
											Turbidity	2014
LAGUNA GRANDE	PREN0012	0.3375	SB		5	5	5	H	M	Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	pH	2008
											Dissolved Oxygen	2014, 2008
											Enterococcus	2014
LAGUNA CEIBA	PREN0013	0.1875	SB		5	5	5	H	M	Unknown Sources	Copper	2014
											pH	2014
											Dissolved Oxygen	2014
											Enterococcus	2014
LAGUNA POZUELO	PRSN0014	0.0547	SB		3	3	5	H	L	Unknown Source Urban Runoff/Storm Sewers	Copper	2014
											pH	2014
											Dissolved Oxygen	2014
											Temperature	2014
LAGUNA MAR NEGRO	PRSN0015	0.325	SB		3	3	5	H	L	Unknown Source Urban Runoff/Storm Sewers	Copper	2014
											pH	2014

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2020 Cycle 303(d) List – List of Lagoons												
Note: The 2020 303(d) List is comprised of the impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, and 2008.												
Waterbody Name	AU - ID	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA					
											Dissolved Oxygen	2014
LAGUNA PUNTA ARENAS	PRSN0016	0.0281	SB		3	3	5	H	L	Unknown Source Urban Runoff/Storm Sewers	Copper	2014
											Dissolved Oxygen	2014
											Temperature	2014
											Turbidity	2014
LAGUNA TIBURONES	PRSN0017	0.0219			3	3	5	H	L	Landfill Unknown Source	Copper	2014
											pH	2014
											Dissolved Oxygen	2014
											Temperature	2014
LAGUNA SALINAS	PRSN0018	0.1203			3	3	5	H	L	Onsite Wastewater Systems Unknown Source	Copper	2014
											Dissolved Oxygen	2014
LAGUNA SALINAS I (FRATERNIDAD)	PRSN0019	0.4594			3	3	5	H	L	Onsite Wastewater Systems Unknown Source	Copper	2014
											Dissolved Oxygen	2014
											Turbidity	2014
LAGUNA CABO ROJO 2 (CANDELARIA)	PRSN0020	0.2969	SB		3	3	5	H	L	Unknown Source	Copper	2014
											Dissolved Oxygen	2014
											Temperature	2014
											Turbidity	2014
LAGUNA CABO ROJO 3 (EL FARO)	PRSN0021	0.1078	SB		3	3	5	H	L	Unknown Source	Copper	2014
											Dissolved Oxygen	2014
											Turbidity	2014
CAÑO BOQUERÓN	PRSN0022	0.2859	SB		3	3	5	H	L		Copper	2014

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2020 Cycle 303(d) List – List of Lagoons												
Note: The 2020 303(d) List is comprised of the impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010, and 2008.												
Waterbody Name	AU - ID	Waterbody Size (mi ²)	Class	2020 Monitoring Stations	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA					
										Marinas and Recreational Boating Minor Industrial Point Sources	pH	2014
											Dissolved Oxygen	2014
											Turbidity	2014
LAGUNA GUANIQUILLA	PRSN0023	0.0344	SB		3	3	5	H	L	Unknown Source	pH	2014
											Dissolved Oxygen	2014
											Turbidity	2014

Notes:

H - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle.

J - Watersheds that have approved TMDL on September 2011, the pollutant was Fecal Coliform.

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life

Priority: L: Low Priority: basins that were not including in the Puerto Rico Unified Watershed Assessment and Restoration Activities (PRUWARA) and have less than 50% of its waters as impaired for some designated use.

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LAKES

Size of waters Impaired by Causes (Monitored acres/miles for Lakes)	
Causes of Impairments	Size of Waters Impaired (acres)
Pesticides	2,133
Surfactants	634
Arsenic	1,194
Copper	2,500
Lead	1,726
Mercury	35
Total, Phosphorus	7,269
Total, Nitrogen	6,516
pH	6,266
Dissolved Oxygen	7,288
Enterococcus	35
Temperature	3,254
Turbidity	2,458

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2020 Cycle 303(d) List – List of Lakes													
Note: The 2020 303(d) List is comprised of the impairments included in assessments cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO GUAJATACA	LAGO GUAJATACA PRNL3A1	1000	SD	NS 10720 10790 10790C	4a	4a	5	5	F	H	Confined Animal Feeding Operations Onsite Wastewater Systems Package Plant (small flows) Unknown Source	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												pH	2020, 2016
												Temperature	2020
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018
RÍO GRANDE DE ARECIBO	LAGO DOS BOCAS PRNL17A1	634	SD	NS 25110 27090 27090E	4a	4a	5	5	K N	H	Agriculture Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems Unknown Source	Arsenic	2006
												Copper	2006
												Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												pH	2020, 2018, 2016, 2012
												Surfactants	2006
												Temperature	2020
												Total, Nitrogen	2020, 2018
												Total, Phosphorus	2020, 2018
Turbidity	2020												
RÍO GRANDE DE ARECIBO	LAGO CAONILLAS PRNL27C1	700	SD	NS 89001 89002 89003	4a	4a	5	5	K	H	Agriculture Onsite Wastewater Systems	Copper	2020, 2012
												Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												Pesticides	2008

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2020 Cycle 303(d) List – List of Lakes													
Note: The 2020 303(d) List is comprised of the impairments included in assessments cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
												pH	2020
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018
RÍO GRANDE DE ARECIBO	LAGO GARZAS PRNL37A3	108	SD	NS 20050	4a	4a	5	5	K	H	Agriculture Onsite Wastewater Systems Unknown Source	Copper	2020
												Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2006
												Lead	2020
												Pesticides	2008
												pH	2018
												Total, Phosphorus	2018
RÍO GRANDE DE MANATÍ	LAGO GUINEO PRNL18C1	54	SD		4a	4a	5	5	H K	H	Agriculture Onsite Wastewater Systems	Dissolved Oxygen	2012, 2010, 2006
												Pesticides	2008
RÍO GRANDE DE MANATÍ	LAGO MATRULLAS PRNL28C1	77	SD	NS 89009 89010	4a	4a	5	5	K	H	Agriculture Confined Animal Feeding Operations Onsite Wastewater Systems Unknown Source	Copper	2020
												Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010
												Lead	2020
												pH	2020, 2018, 2014, 2012, 2010, 2006
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018
			SD		4a	4a	5	5	B	H	Collection System Failure	Arsenic	2006

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2020 Cycle 303(d) List – List of Lakes													
Note: The 2020 303(d) List is comprised of the impairments included in assessments cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO DE LA PLATA	LAGO DE LA PLATA PREL110A1	560		NS 44400 44950 44950C					N		Confined Animal Feeding Operations Landfill Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												Lead	2020
												pH	2020, 2018, 2016
												Temperature	2020
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018, 2016, 2006
Turbidity	2016												
RÍO DE LA PLATA	LAGO CARITE PREL210A5	333	SD	NS 39900 39950 39950C	4a	4a	5	5	B	H	Confined Animal Feeding Operations Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2006
												pH	2020
												Total, Phosphorus	2020, 2018
RÍO BAYAMÓN	LAGO CIDRA PREL12A2	268	SD	NS 89029 89030 89031	4a	4a	5	5	F	H	Collection System Failure Confined Animal Feeding Operations Minor Industrial Point Sources Onsite Wastewater Systems	Copper	2020
												Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												Lead	2020
												Total, Nitrogen	2020
Total, Phosphorus	2020, 2018												

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2020 Cycle 303(d) List – List of Lakes													
Note: The 2020 303(d) List is comprised of the impairments included in assessments cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RÍO GRANDE DE LOIZA	LAGO LOIZA PREL14A1	713	SD	NS 57500 58800 58800D	4a	4a	5	5	C	H	Collection System Failure Confined Animal Feeding Operations Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020, 2014, 2012
												Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008
												Lead	2012
												pH	2020
												Temperature	2020
												Total, Nitrogen	2020, 2018
												Total, Phosphorus	2020, 2018
Turbidity	2020, 2018, 2016, 2014, 2012, 2010, 2008												
RÍO GRANDE DE PATILLAS	LAGO PATILLAS PRSL43A1	312	SD	NS 89022 89023 89024	4a	4a	5	5	J	H	Agriculture Onsite Wastewater Systems Unknown Source	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												pH	2020
												Pesticides	2008
												Temperature	2020
QUEBRADA MELANÍA	LAGO MELANÍA PRSL50A	35	SD	NS 89026	4a	4a	5	5	J	M	Agriculture Onsite Wastewater Systems Unknown Source	Enterococcus	2020
												Mercury	2020
												Pesticides	2008
												Temperature	2020

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2020 Cycle 303(d) List – List of Lakes													
Note: The 2020 303(d) List is comprised of the impairments included in assessments cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018
RÍO JACAGUAS	LAGO GUAYABAL PRSL ₁ 60A1	373	SD	NS 89011 89012 89013	4a	4a	5	5	F	M	Agriculture Collection System Failure Minor Industrial Point Sources Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												Pesticides	2008
												pH	2020
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018
RÍO JACAGUAS	LAGO TOA VACA PRSL ₂ 60A1	836	SD	NS 89014 89015 89016	4a	4a	5	5	F	M	Agriculture Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008
												pH	2020, 2016
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018
												pH	2020, 2016
RÍO BUCANÁ-CERRILLOS	LAGO CERRILLOS PRSL ₆ 2A1	700	SD	NS 89032 89033 89034	4a	4a	5	5	J	M	Unknown Source Urban Runoff/Storm Sewers	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018

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2020 Cycle 303(d) List – List of Lakes													
Note: The 2020 303(d) List is comprised of the impairments included in assessments cycles 2020, 2018, 2016, 2014, 2012, 2010, 2008 and 2006.													
Basin	Waterbody Name	Waterbody Size (acres)	Class	2020 Monitoring Stations NS = Network	Designated Uses and Categories Summary				Notes	Priority	Potential Pollution Sources	Causes of Impairment	Impaired Cycles
					R1	R2	VA	AP					
RIO YAUCO	LAGO LUCHETTI PRSL68A1	266	SD	NS 89017 89018 89019	4a	4a	5	5	F	M	Agriculture Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												pH	2020, 2018
												Pesticides	2008
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018
												Turbidity	2020
RÍO LOCO	LAGO LOCO PRSL69A	69	SD	NS 89021C	4a	4a	5	5	F	M	Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008
												pH	2020
												Total, Nitrogen	2020
												Total, Phosphorus	2020, 2018
RÍO GRANDE DE AÑASCO	LAGO GUAYO PRWL83H	285	SD	NS 89004 89005 89006	4a	4a	5	5	K	H	Agriculture Confined Animal Feeding Operations Major Industrial Point Sources Minor Municipal Point Sources Onsite Wastewater Systems	Dissolved Oxygen	2020, 2018, 2016, 2014, 2012, 2010, 2008, 2006
												Pesticides	2008
												pH	2020, 2018
												Total, Nitrogen	2020, 2018
												Total, Phosphorus	2020, 2018
Turbidity	2020												

Notes:

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B - Watershed that has an approved TMDL for Río de la Plata, the TMDL was approved on September 2003, the pollutant was Fecal Coliforms.

C - Watershed that has an approved TMDL for Río Grande de Loíza, the TMDL was approved on September 2007, the pollutant was Fecal Coliforms.

F - Watersheds that have approved TMDL on September 2012, the pollutant was Fecal Coliforms.

H - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle.

J - Watersheds that have approved TMDL on September 2011, the pollutant was Fecal Coliform.

K - Watersheds that have an approved TMDL on September 2010, the pollutant was Fecal Coliforms. The watersheds are Río Grande de Arecibo, Río Grande de Manatí, Río Grande de Añasco and Río Culebrinas.

N- Remains in 2020 303 (d) List due to old segmentation evaluation.

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL - Aquatic Life

DW - Raw Source for Drinking Water

Priority: H: High Priority: basins including in the Puerto Rico Unified Watershed Assessment and Restoration Activities (PRUWARA), as basins of priority due to the high pollution level related to all the designated uses.

M: Intermediate Priority: basins that were not including in the PRUWARA and have 50% or more of its waters as impaired for some designated use.

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COASTAL SHORELINE

Size of Waters Impaired by Causes Coastal Shoreline	
Causes of Impairment	Size of Waters Impaired (miles)
Nickel	170.90
Thallium	203.74
Arsenic	49.19
Copper	380.83
Lead	152.17
Mercury	213.37
Zinc	43.8
pH	176.26
Dissolved Oxygen	118.61
Temperature	249.74
Enterococcus	277.18
Fecal Coliforms	7.79
Turbidity	422.37
Oil and Grease	82.42

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
PRNC01 Punta Borinquén to Punta Sardina	11.75	SB	NS MAC-044, SBZ-003, SBZ-004, SBZ-005	1	1	5		L	Onsite Wastewater Systems	Copper	2020
										Thallium	2020
PRNC02 Punta Sardina to Punta Manglillo	14.10	SB	NS MAC-047 MAC-086 SBZ-006	5	5	5		L	Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020, 2018
										Thallium	2020
										Lead	2020
										Enterococci	2020, 2018, 2014, 2010
PRNC03 Punta Manglillo to Punta Morrillos	9.65	SB	NS SBZ-007 SEG3-01	5	5	5		L	Collection System Failure Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	Copper	2020
										Enterococci	2020,2018
										Temperature	2020
										Turbidity	2018, 2016
PRNC04 Punta Morrillos to Punta Manatí	13.66	SB	NS MAC-049 MAC-055 SBZ-008	5	5	5		L	Collection System Failure Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	Copper	2020, 2018
										Mercury	2020
										Nickel	2020
										Dissolved Oxygen	2016
										Enterococci	2018
										pH	2018
										Thallium	2020, 2018
Turbidity	2020, 2018, 2016, 2014, 2012										
PRNC05	7.46	SB	NS	5	5	5		L	Unknown Source	Copper	2020, 2018

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
Punta Manatí to Punta Chivato			SBZ-010 SEG5-01						Mercury	2020	
									Thallium	2020	
									Enterococci	2020, 2018	
									pH	2020, 2018	
									Temperature	2020	
								Turbidity	2018		
PRNC06 Punta Chivato to Punta Cerro Gordo	3.23	SB	NS MAC-087 RW23	5	5	5		L	Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	Copper	2018
										Mercury	2020
										Enterococci	2020, 2018
										Temperature	2020
								Turbidity	2018		
PRNC07 Punta Puerto Nuevo to Punta Cerro Gordo	5.05	SB	NS MAC-088 SEG7-01 RW-17	1	1	5	K	L	Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	Copper	2020, 2018
										Mercury	2018
										pH	2020
										Temperature	2020
								Turbidity	2020, 2018		
PRNC08 Punta Cerro Gordo to Punta Boca Juana	7.32	SB	NS SBZ-013 SBZ-014 RW-18	5	5	5		L	Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	Arsenic	2020
										Lead	2020
										Copper	2020, 2018
										Nickel	2020
										Zinc	2020
										Enterococci	2020, 2018
								Turbidity	2020, 2018, 2016		
PREC09 Punta Boca Juana to Punta Salinas	5.78	SB	NS MAC-077 SEG9-01 RW-19	1	1	5		L	Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	Arsenic	2020
										Copper	2020, 2018
										Lead	2020
										Nickel	2020, 2018

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
PREC10B Punta Salinas to Rio Bayamón Mouth	2.91	SB	NS MAC-063	5	5	5		L	Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020, 2018
										Enterococci	2020, 2018, 2016, 2014
										Lead	2020, 2018
										Mercury	2020, 2018
										Nickel	2020, 2018
										Turbidity	2020, 2018, 2016, 2014
PREC10C Rio Bayamón Mouth to Isla de Cabras	6.63	SB	NS SEG10C-01 SEG10C-02	5	5	5		L	Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020, 2018
										Enterococci	2020, 2018
										Lead	2020, 2018
										Mercury	2020, 2018
										Nickel	2020, 2018
										Zinc	2020
										Thallium	2020
										pH	2018
										Temperature	2020
Turbidity	2020, 2018, 2016										
PREC11 Isla de Cabras to Punta Del Morro	7.79	SB		5	5	5	H	L	Major Industrial Point Sources Major Municipal Point Sources Minor Municipal Point Sources Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	Arsenic	2010
										Copper	2010
										Dissolved Oxygen	2010
										Fecal Coliform	2010

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
PREC13 East side of Condado Bridge to Punta Las Marías	4.31	SB	NS B-1 B-2 RW-26 RW-27	5	5	5		L	Urban Runoff/Storm Sewers	Copper	2020
										Enterococci	2020, 2018
										Lead	2020
										Mercury	2020
										Thallium	2020
										Temperature	2020
Turbidity	2020, 2018, 2016										
PREC14 Punta Las Marías to Punta Cangrejos	4.19	SB	NS EB-40, B-3, SEG14-01 SEG14-02, RW-21C	1	1	5		L	Marinas and Recreational Boating Urban Runoff/Storm Sewers	Arsenic	2020
										Lead	2020
										Copper	2020
										Thallium	2020
										Temperature	2020
										Turbidity	2020, 2018, 2016, 2014
PREC15 Punta Cangrejos to Punta Vacía Talega	6.23	SB	NS SBZ-024 SBZ-026	5	5	5		L	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Arsenic	2020
										Copper	2020
										Mercury	2020
										Nickel	2020
										Thallium	2020
										Enterococci	2020, 2018
Turbidity	2020, 2018, 2016										
PREC16 Punta Vacía Talega to Punta Miquillo	9.46	SB	NS SBZ-027 SBZ-028	5	5	5		L	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Arsenic	2020
										Mercury	2020
										Copper	2020
										Lead	2020
										Nickel	2020
										Thallium	2020
										Zinc	2020
										Temperature	2020
										Enterococci	2020, 2018
Turbidity	2020, 2018, 2016										

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
PREC17 Punta Miquillo to Punta La Bandera	8.41	SB	NS MAC-009, SEG17-01 RW-1A	1	1	5		L	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020
										Mercury	2020
										Temperature	2020
										Turbidity	2018, 2016
PREC18 Punta La Bandera to Cabezas de San Juan	10.46	SB	NS MAC-010 SBZ-030 RW-2	1	1	5		L	Unknown Source	Copper	2020
										Thallium	2020
										pH	2018
										Temperature	2020
PREC19 Cabezas de San Juan to Punta Barrancas	7.08	SB	NS MAC-078	5	5	5		L	Marinas and Recreational Boating Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	Copper	2020, 2018
										Enterococci	2020, 2018, 2016
										Oil & Grease	2014
										Temperature	2020
										Turbidity	2020, 2018, 2016, 2014
PREC20 Punta Barrancas to Punta Medio Mundo	5.33	SB	NS SEG20-01 SEG20-02	5	5	5		L	Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020
										Thallium	2020
										Dissolved Oxygen	2018, 2016
										Enterococci	2020, 2018
										Temperature	2020
Turbidity	2020, 2018, 2016										
PREC23	8.33	SB	NS SEG23-01	1	1	5		L	Major Industrial Point Sources	Copper	2020

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
Isla Cabras to Punta Cascajo									Marinas and Recreational Boating	Turbidity	2020, 2016
PREC24 Punta Cascajo to Punta Lima	9.07	SB	NS SEG24-02	5	5	5		L	Major Industrial Point Sources Upstream Impoundment	Copper	2020
										Dissolved Oxygen	2018, 2016
										Enterococci	2020, 2018
										Temperature	2020
PREC25 Punta Lima to Morro de Humacao	9.83	SB	NS MAC-080 MAC-081 SEG25-01 RW-4, RW-31	5	5	5		L	Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020, 2018
										Mercury	2020
										Temperature	2020
										Enterococci	2020, 2018
PREC26 Morro de Humacao to Punta Candellero	1.84	SB	NS SEG26-01	5	5	5		L	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020
										Enterococci	2020, 2018
										Temperature	2020
										Turbidity	2020, 2018, 2016
PREC27 Punta Candellero to Punta Guayanés	3.74	SB	NS SEG27-01	5	5	5		L	Onsite Wastewater Systems Urban Runoff/Storm Sewers	Arsenic	2020
										Copper	2020
										Thallium	2020
										Enterococci	2020, 2018, 2008
PREC28C Punta Guayanés to Punta Quebrada Honda	4.68	SB	NS MAC-012 SBZ-037	5	5	5		L	Major Industrial Point Sources Onsite Wastewater Systems	Arsenic	2020
										Mercury	2020
										Copper	2020, 2018
										Thallium	2020
									Enterococci	2020, 2018	

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
									Urban Runoff/Storm Sewers	Oil & Grease Temperature Turbidity	2014 2020 2020, 2018, 2016, 2014, 2012
PREC28B Punta Quebrada Honda to Punta Yeguas	0.74	SB	NS SBZ-038	5	5	5		L	Onsite Wastewater Systems Unknown Source	Copper Thallium Enterococci Turbidity	2020, 2018 2020 2020, 2018 2020, 2016
PREC29 Punta Yeguas to Punta Tuna	4.35	SB	NS SEG29-02 SEG29-01	5	5	5		L	Onsite Wastewater Systems Unknown Source Urban Runoff/Storm Sewers	Copper Enterococci Lead Thallium pH Turbidity	2020, 2018 2020, 2018 2018 2020 2018 2020, 2018, 2016
PREC30 Punta Tuna to Cabo Mala Pascua	2.65	SB	NS MAC-082	5	5	5		L	Unknown Source	Copper Enterococci Turbidity	2020, 2018 2020, 2018, 2016 2020, 2018, 2016, 2014, 2012
PRSC31 Cabo Mala Pascua to Punta Viento	4.06	SB	NS SEG31-01	5	5	5		L	Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	Copper Thallium Turbidity Temperature	2018 2020 2020 2020
PRSC32 Punta Viento to Punta Figuras	6.16	SB	NS MAC-083 SBZ-040 RW-6 RW-7	5	5	5		L	Onsite Wastewater Systems Upstream Impoundment Urban	Copper Mercury Thallium Dissolved Oxygen Enterococci	2020, 2018 2020 2020 2018, 2016 2020, 2018, 2014, 2010

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
									Runoff/Storm Sewers	Temperature Turbidity	2020 2020, 2018, 2016, 2014
PRSC33 Punta Figuras to Punta Ola Grande	8.10	SB	NS MAC-017 SEG33-01	5	5	5		L	Major Industrial Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020, 2018
										Lead	2020
										Mercury	2020
										Enterococci	2020, 2018
										Temperature	2020
Turbidity	2020, 2018, 2016, 2014, 2012, 2008										
PRSC34 Punta Ola Grande to Punta Petrona	40.9	SB	NS MAC-019 SEG34-01 SEG34-02 ED-Stations 09, 10, 19 and 20 from Natural Reserve of Jobos Bay	5	5	5	M	L	Agriculture Major Industrial Point Sources Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storms sewers	Copper	2020, 2018
										Lead	2020
										Mercury	2020
										Nickel	2020
										Dissolved Oxygen	2018, 2016, 2014, 2012, 2010
										Enterococci	2020, 2018, 2012, 2010
										Oil & Grease	2014
										pH	2020,2018, 2016, 2014, 2012, 2010
										Temperature	2020, 2016, 2014
Turbidity	2020, 2018, 2016, 2014, 2012, 2010										
PRSC35 Punta Petrona to Punta Cabullones	16.19	SB	NS MAC-020 SEG35-01 SEG35-02 ED -CariCoos Buoy A	5	5	5	M	L	Major Municipal Point Sources Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	Copper	2020, 2018
										Lead	2020
										Nickel	2020
										Thallium	2020
										Zinc	2020
										Enterococci	2020, 2018, 2016
										Mercury	2020, 2018
										Turbidity	2020, 2018, 2016, 2014

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
PRSC36B Punta Cabullones to Punta Carenero	2.53	SB	NS SEG36B-01	1	1	5		L Major Municipal Point Sources Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	pH	2020	
									Temperature	2020	
									Copper	2020, 2018	
									Mercury	2018	
								Turbidity	2020, 2018, 2016		
PRSC36C Punta Carenero to Punta Cuchara	6.70	SB	NS MAC-022 MAC-023	5	5	5		L Major Municipal Point Sources Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	Turbidity	2020	
									Copper	2020, 2018	
									Dissolved Oxygen	2012	
									Enterococci	2020, 2018, 2014	
									Mercury	2018	
									Oil & Grease	2014	
PRSC37B Punta Cuchara to Cayo Parguera	3.30	SB	NS MAC-084	5	5	5		L Surface Mining Urban Runoff/Storm Sewers Upstream Impoundment Unknown Source	Turbidity	2020, 2018, 2016, 2014	
									pH	2020	
									Copper	2020, 2018	
									Nickel	2020	
									Enterococci	2020, 2018	
									Mercury	2020, 2018	
PRSC37C Cayo Parguera to Punta Guayanilla	4.20	SB	NS MAC-24 MAC-25	5	5	5		L Major Municipal Point Sources Major Industrial Point Sources Surface Mining	Turbidity	2020, 2018, 2016, 2014	
									Copper	2020, 2018	
									Mercury	2020	
									Enterococci	2020, 2018	
									Lead	2018	
									Nickel	2018	

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
									Onsite Wastewater Systems Upstream Impoundment Marinas and Recreational Boating Urban Runoff/Storm Sewers	Thallium Oil & Grease Zinc	2020 2014 2018
PRSC38 Punta Guayanilla to Punta Verraco	13.20	SB	NS MAC-027 MAC-028 MAC-089	5	5	5		L	Major Municipal Point Sources Marinas and Recreational Boating Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	Copper	2020, 2018
										Mercury	2020
										Thallium	2020
										Enterococci	2020, 2018
										Oil & Grease	2014
										Turbidity	2020
										Temperature	2020, 2018, 2016, 2014
PRSC39 Punta Verraco to Punta Ballena	6.41	SB	NS MAC-030, Seg39-01, G1	1	1	5		L	Unknown Source	Turbidity	2020, 2018, 2016, 2014, 2012
										Copper	2020
										Thallium	2020
PRSC40 Punta Ballena to Punta Brea	13.26	SB	NS MAC-034 MAC-085 RW-9	1	1	5		L	Marinas and Recreational Boating Minor Municipal Point Sources	Turbidity	2020, 2012
										Copper	2020
										Nickel	2020, 2018
										pH	2020, 2018, 2016, 2012

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
									Onsite Wastewater Systems Urban Runoff/Storm Sewers	Temperature	2020, 2018, 2012
PRSC41B1 Punta Brea to Bahía Fosforescente La Parguera	10.93	SB	NS SBZ-045 SEG41B1-01 RW-10	1	1	5		L	Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	Turbidity	2020, 2018, 2016, 2014, 2012
										Copper	2020
										Thallium	2020
										Temperature	2020
PRSC41B2 Bahía Fosforescente La Parguera to Punta Cueva de Ayala	7.00	SB	NS SBZ-046 Seg41B2-01, RW-33 ED - Station MGIP4 from NOAA, & CariCoos	1	1	5	M	L	Landfill Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	Copper	2020, 2018
										Thallium	2020
										Dissolved Oxygen	2020, 2016
										pH	2020, 2018
										Temperature	2020
										Turbidity	2020, 2016
PRSC41B3 Bahía Monsio José to Faro de Cabo Rojo	13.45	SB	NS SEG41B3-01 SEG41B3-02	5	5	5		L	Unknown Source	Turbidity	2020, 2018, 2016
										Mercury	2020
										Thallium	2020
										Nickel	2020
										Dissolved Oxygen	2020, 2016
										Enterococci	2020, 2018
PRWC42	2.89	SB	NS	1	1	5		L	Unknown Source	Turbidity	2020, 2018, 2016

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
Faro de Cabo Rojo to Punta Águila			SEG42-01						Dissolved Oxygen	2020, 2018, 2016	
									pH	2018	
									Temperature	2020, 2018	
PRWC43 Punta Águila to Punta Guaniquilla	9.54	SB	NS MAC-037, SBZ-047 SBZ-048 RW-12A, RW-12B, RW-13, RW-14A	1	1	5		L	Collection System Failure Marinas and Recreational Boating Minor Municipal Point Sources Onsite Wastewater Systems	Turbidity	2020,2018, 2016
										Temperature	2020
PRWC44 Punta Guaniquilla to Punta La Mela	2.50	SB	NS SBZ-050 SBZ-051, RW-8	1	1	5		L	Onsite Wastewater Systems	Turbidity	2020, 2018, 2016
										Thallium	2020
										pH	2020
PRWC45 Punta La Mela to Punta Carenero	2.95	SB	NS SEG45-01	5	5	5		L	Collection System Failure Marinas and Recreational Boating Onsite Wastewater Systems	Turbidity	2020, 2018, 2016
										Copper	2020, 2018
										Thallium	2020
										Lead	2020
										Enterococci	2020, 2018, 2016
PRWC46 Punta Carenero to front of Cayo Ratones	4.00	SB	NS SBZ-052	5	5	5		L	Collection System Failure Marinas and Recreational Boating Onsite Wastewater Systems Urban Runoff/Storm Sewers	Turbidity	2020, 2018, 2016
										Copper	2020
										Lead	2020
										Thallium	2020
										Enterococci	2018
										Temperature	2020

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
PRWC47 In front of Cayo Ratonos to Punta Guanajibo	3.85	SB	NS SEG47-01	1	1	5		L	Onsite Wastewater Systems	Turbidity	2020,2018
										Copper	2020
										Nickel	2020
PRWC48 Punta Guanajibo to Punta Algarrobo	5.60	SB	NS MAC-038 MAC-040	5	5	5		L	Onsite Wastewater Systems Upstream Impoundment Urban Runoff/Storm Sewers	Turbidity	2020
										Copper	2020, 2018
										Lead	2020
										Mercury	2020
										Thallium	2020
										Dissolved Oxygen	2012
										Enterococci	2020, 2018, 2016, 2014, 2010
										Nickel	2020, 2018
Oil & Grease	2014										
pH	2018										
PRWC49 Punta Algarrobo to Punta Cadena	6.98	SB	NS MAC-041 SEG49-01 RW-15	5	5	5		L	Major Municipal Point Sources Upstream Impoundment Urban Runoff/Storm Sewers Onsite Wastewater Systems	Turbidity	2020, 2018, 2016, 2014
										Copper	2020, 2018
										Nickel	2020
										Enterococci	2020, 2018
										pH	2018, 2012
										Temperature	2020
PRWC50 Punta Cadena to Punta Higüero	4.98	SB	NS SBZ-054 SBZ-055 RW-5	5	5	5		L	Onsite Wastewater Systems Unknown Sources Upstream Impoundment	Turbidity	2020, 2018, 2016
										Copper	2020, 2018
										Enterococci	2018
										Lead	2018
										Nickel	2020, 2018
										Mercury	2020

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2020 Cycle 303(d) List – List of Coastal Shoreline											
Note: The 2020 303(d) List is comprised of the causes of impairments included in assessment cycles 2020, 2018, 2016, 2014, 2012, 2010 and 2008.											
Assessment Unit ID (AU)	Size of AU (miles)	Class	2020 Monitoring Stations NS = Network ED = External Data	Designated Uses and Categories Summary			Notes	Priority	Potential Pollution Sources	Causes of Impairment	Years Impaired
				R1	R2	VA					
PRWC51 Punta Higüero to Punta del Boquerón	6.14	SB	NS SEG51-01 SEG51-02 RW-22	5	5	5		L	Onsite Wastewater Systems Unknown Source	Turbidity	2020, 2018, 2016
										Copper	2020, 2018
										Lead	2020
										Mercury	2020
										Enterococci	2020, 2018
										Nickel	2020, 2018
PRWC52 Punta del Boquerón to Punta Borinquén	6.80	SB	NS MAC-043 SBZ-002, SBZ-003, SBZ-004 RW-16, RW-16A	1	1	5		L	Major Municipal Point Sources Onsite Wastewater Systems Urban Runoff/Storm Sewers	Turbidity	2020, 2016, 2018
										Copper	2020
PRCC53 Culebra Island	32.70	SB	NS RW-3	2	2	5		L	Onsite Wastewater Systems Marinas and Recreational Boating Debris and Bottom Deposits Hazardous Waste	Turbidity	2020, 2010
										pH	2018

Notes:

H - If the Monitoring Station column is left blank, the Assessment Unit was not monitored for 2020 cycle.

M - External data

R1 - Primary Contact Recreation

R2 - Secondary Contact Recreation

AL – Aquatic Life

Priority: L: Low Priority: basins that were not including in the Puerto Rico Unified Watershed Assessment and Restoration Activities (PRUWARA) and have less than 50% of its waters as impaired for some designated use.

**APENDIX II - Implementation of the Clean Water Act 303(d) Program
Vision Long – Term Vision**

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Implementation of the Clean Water Act 303(d) Program Vision Long – Term Vision

Introduction

In December 2013, Environmental Protection Agency (EPA) announced a new framework for implementing the Clean Water Act (CWA) Section 303(d) Program – A long-term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program. This new vision, encourage states and territories to develop tailored strategies to implementation CWA 303(d) responsibilities of their overall water quality goals and individuals states priorities.

Recognizing each State is unique, EPA expects that States will vary in the extent to which and how they implement the goals of the Vision, depending on particular circumstances and water quality goals of the State. To support State and EPA discussions on re-orienting CWA 303(d) Program responsibilities consistent with the Vision, EPA is providing additional information for States to consider when implementing the Prioritization, Engagement and Alternative Goals. EPA and States jointly identified these topics as warranting further clarification to promote timely implementation of the Vision and submittal and review of States' 2016 Integrated Reports. EPA anticipates working closely with the States on these issues as States move forward with developing their Integrated Reports.

Long-term Prioritization from 2016 to 2022

Consistent with the new EPA's vision, Puerto Rico Environmental Quality Board (PREQB) identify those assessment units (AU) for priority restoration and protection activities. This prioritization provides a framework to focus the location and timing for the development of, alternative restoration, protection plans and TMDLs. Those alternatives should include:

- Identification of specific impairment addressed by an alternate approach.
- Planning, development and implement effectiveness monitoring programs.
- Revisions, and amendments to the existing regulations.

Recently, PREQB update its Non-Point Source Management Program (NPSMP). One of the most important parts of this NPSMP is the development and implementation of a Priority System. This Priority System will be used as a priority based system in the long-term vision of the assessment restoration and protection under the CWA section 303(d). The main purpose will be standardizing the priority systems and the basic criteria used for a more effective assessment of island's water quality.

Priority Ranking Criteria System

The Priority Ranking Criteria System is based on the awarding of points, distributed in 10 criteria, which will identify the priority. To establish the degree of priority for the protection and restoration the evaluation will be by AU. The selected criteria are:

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1. Segment Classification (description)

Under this criterion was established six (6) categories to which a score is assigned considering where it drains the segment into the basin or sub-basin. The highest score in this criteria is awarded to the lake itself and in descending order to its tributaries according to its draining on the basin or sub-basin. Each AU will be classified as follow:

- Stream or Channel not related to river or lakes
- Tributary of main river not flowing into a lake
- Main river not flowing into lake
- Tributary of the main river, which flows into a lake
- Main river which runs into a Lake
- Lake

2. Population Density

The population density is an important criterion to determine which segments are in the greatest need for protection in relation to each other. The relationship of people with respect to the surface space they occupy an area allows us to anticipate where we can find more activity that involves activities with a potential impact on the basins or sub-basins.

The ranges of population density used are the following:

- 160-499
- 500-749
- 750-999
- 1,000-1,349
- 1,350-2,999
- 3,000-9,1000

3. Mean Annual Rainfall

Precipitation generates run-off waters that run on the ground, which have the potential to drag and transport sediment and other pollutants into waterbodies. Those areas in which the precipitation is high, have a greater potential impact on surface water (AU). Therefore, as part of the prioritization system is included the mean annual rainfall as a criterion to assign the priority level of protection of AU. For this criteria were established five classification based on ranges that are shown below:

- 35-49 in
- 50-69 in

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- 70-89 in
- 90-99 in
- 100 in or more

4. Predominant Special Activities

The surface water that are impacted, sometimes can be associated to certain contaminant activities. Those activities that are related to specific pollutants have been identified and included under predominant activities criteria. This criterion is intended to give priority to surface water with such activities present in the AU. The classification established are the following:

- Agriculture
- Industrial

5. Monitory Station

Monitoring stations are essential to gather data on water quality and keep it updated. The lack of water quality data, limits the analysis and monitoring that can be performed on a waterbody. The existence of a sampling station is essential to carry out successfully the monitoring of the AU. Therefore, this approach is essential in determining whether it is potential candidate or not to be protected. The criteria of monitoring station will be:

- Exist
- Do not exist

6. Known Potential Pollution Source

The potential pollution sources, affect significantly the water quality. The recognition of knowns potential pollution sources on the watershed or sub- basin, imparts a greater certainty in the prioritization process. Therefore, the identification of that sources, will allow to establish the priority order to protect the AU as needed. The classification under this criterion are the following:

- Superfund Site
- Non active landfill
- Active landfill
- Underground storage tanks (UIC)
- Wastewater pump stations (Bypass)
- CES projects
- Livestock Enterprises
- Presence of communities without sanitary sewerage

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7. AU frequency on 303(d) List

This criterion was based on the analysis of the 2014 303(d) list. The value of percentage ranges increases according to the frequency the AU was included in the 303(d) List in each evaluation cycles.

- 100-90%
- 89-80%
- 79-70%
- 69-60%
- 59-0%

8. Priority Watersheds

It will be considered if the AU is part of one of the 18 priority watersheds identified in the *Puerto Rico Unified Watershed Assessment and Restoration Activities (PRUWA)* document.

9. Sensitive Natural Area

The presence of sensitive areas in an AU is a criterion that is also important to consider as a matter of priority, since runoff can impact it with many potential pollutants. Therefore, we establish the following criteria:

- None
- Proposed area for conservation
- Designed Natural Reserve
- Natural Reserve designed with proposed area for conservation

10. Water intake from Puerto Rico Aqueduct and Sewer Authority (PRASA)

Water Intakes in the AU will be taken in consideration as a priority criterion.

11. Valuable Coral Reef Areas (Coastal Sensitive Area)

Assessments units that drains to an area identified as valuable coral threatened areas will be established as priority criteria to be manage with a higher priority. On this criterion are considered two categories: For coral reef areas, PREQB took in consideration the information of the National Oceanic and Atmospheric Administration and DNER.

- AU do not drain to a valuable coral reef area (No)

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- AU drains to a valuable coral reef area (Yes)

Detail Point of the Priority Ranking System

In order to establish the priority ranking each one of the AU for the inland waters was evaluated considering the following point system (Table 48).

Table 48: Detailed Point System

Criteria Detailed and element	Points
1. Segment Clasification	
• Stream or Caño not related to river or lakes	1
• Tributary of a main river not flowing into a Lake	2
• Main river not flowing into a Lake	3
• Tributary of the main river, which flows into a lake	4
• Main river which runs into a Lake	5
• Lake	6
Points to be considered in the percentage calculation	6
2. Population Density	
• 160-499	1
• 500-749	2
• 750-999	3
• 1,000-1,349	4
• 1,350-2,999	5
• 3,000-9,100	6
Points to be considered in the percentage calculation	6
3. Mean Annual Rainfall	
• 35-49 in.	1
• 50-69 in.	2
• 70-89 in.	3
• 90-99 in.	4
• 100 in or more	5
Points to be considered in the percentage calculation	5
4. Predominant Special Activities	
• Industrial	1
• Agriculture	2
Points to be considered in the percentage calculation	3
5. Monitory station	
• No	0
• Yes	2
Points to be considered in the percentage calculation	2
6. Known Potential Pollution Sources	
• Superfund Site	1

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Criteria Detailed and element	Points
• Non active landfills	2
• Active landfill	3
• Underground storage tanks (UIC)	4
• Wastewater pump stations (Bypass)	5
• CES projects	6
• Livestock Enterprises	7
• Presence of communities without sanitary sewerage	8
Points to be considered in the percentage calculation	36
7. AU frequency on 303 (d) List	
• 0% (not listed)	0
• 1-59%	1
• 60-69%	2
• 70-79%	3
• 80-89%	4
• 90% or more	5
Points to be considered in the percentage calculation	5
8. Priority Watersheds	
• No	0
• Yes	2
Points to be considered in the percentage calculation	2
9. Sensitive Natural Area (Ecological sensitive area)	
• None	0
• Proposed area for conservation according to Planning Board	2
• Designed Natural Reserve	4
• Designed Natural Reserve with Proposed area for conservation	6
Points to be considered in the percentage calculation	6
10. Water intake from AAA	
• None	0
• 1	2
• 2	4
• 3	6
• 4 or more	8
Points to be considered in the percentage calculation	8
11. Valuable Coral Reef Areas (Coastal Sensitive Area)	
AU do not drains to a valuable coastal area (No)	0
AU drains to a valuable coastal area (Yes)	5
Points to be considered in the percentage calculation	5
TOTAL POINT TO CALCULATE PRIORITY PERCENTAGE	84

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Once the evaluation is completed for each one of the assessment unit; to summarize the priority order in which the AU will be address the following categories were established:

High Priority (H): are assessment units that have a ranking between 100 to 70 percentages (adjusted).

Moderate Priority (M): are assessment units that have a ranking between 70 to 32 percentages (adjusted)

Low Priority (L): are assessment units that have a ranking between 32 to 0 percentages (adjusted).

Others Consideration for Prioritization

Phosphorus impairments

Due to the fact that the nutrient criteria are much needed for rivers and stream as endpoint for developing TMDL, PREQB had intended to adopt rivers and streams nutrient criteria first. It is likely that the criteria will be adopted for all water of appropriate classes, islandwide.

PREQB amended the Puerto Rico Water Quality Standard Regulation (PRWQSR) to incorporate the new standards for Total Phosphorus and Total Nitrogen applicable to the rivers and streams of PR. It was adopted on August 19, 2014. Actually, PREQB is in the process of complete the development and adoption of the numeric nutrient criteria (TP and TN) for lakes/reservoirs.

The development of the Puerto Rico Nutrient Standard Plan (PRNSP) describes the approach to addressing nutrient over-enrichment, along with the plan to refine its current nutrient criteria in response to the USEPA requirements that states/territories adopt nutrient criteria for their waterbodies.

However, in addition to those AU identified by the priority system the following AU will be included as part of the priority watersheds for the parameter of Phosphorus (Table 49):

Table 49: Additional AU due to Phosphorus Impairments

ASSESSMENT UNIT	CAUSES NAME
PRER14H	Phosphorus
PRSR67A	Phosphorus
PRSR68A1	Phosphorus
PRWR94A	Phosphorus

San Juan Bay Estuary System

The AU (PREE13A2) will be considered as priority, it's belongs to the San Juan Estuary System. This Estuary was designated in 1992 as part of National Estuary Program for which it's developed the Comprehensive Conservation and Management Plan (CCMP), to improved and maintain the integrity of the San Juan Bay Estuary and its designated uses (Table 50).

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Table 50: AU of the San Juan Bay Estuary System

AU ID	CAUSES OF IMPARMENTS
PREE13A2	Dissolve Oxygen, Ammonia, Oil and Grease, pH, Thermal Modification, Total Coliforms, Turbidity, NO ₂ +NO ₃ , Surfactants, Lead, Copper, Cyanide

Long-Term Priorities AU

The PREQB uses the river basins system for planning activities and implementation of restoration efforts. In order to achieve these efforts in a more effective manner, we have replaced the old system based on the segmentation of small portions of rivers and individual creeks by basin segmentation system that has been implemented since the 2006 reporting cycle. The non-contributions basins are those areas, contribute to the coastal shoreline instead of the inland waters. Under this system, each main river basin it is divided in assessment units that consist of complete sub-basins. The smaller river basins have been maintained as a single assessment unit or, at the most, it may be segmented in two assessment units. A total of 194 AU for rivers and streams water bodies; 18 AU for the lakes or reservoirs; and 62 for estuaries (Please refers to Table 51) are delimited in the inland water off Puerto Rico.

Table 51: AU and water bodies size per Type of Water body

WATER BODY TYPE	ASSESSMENT UNITS	SIZES OF WATER TYPE
Rivers/Streams	194	5,052.8 miles
Lakes/Reservoirs	18	7,323 acres
Estuary	62	3,430.3 acres

After evaluated each one of the AU taking in consideration the criteria and the other considerations above mentioned the AU included in Table 5 are the long term priorities areas.

Integrated alternatives approaches

Following the alternatives approaches that will be considered to restore and protect impaired waterbodies.

1. Improve Monitoring Strategy

Parameters such as: Arsenic and Cyanide recently have changes in the water quality standard adopted in the PWQSR. Therefore, a specific monitoring plan needs to be develop and implement in each one of the AU that includes parameters such as: arsenic, cyanide in order to very if the impairment persists and a restoration plan or TMDL is needed or identified those AU that comply with the water quality standard and therefore and needs to be delisted from the 303 (d) List.

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2. Puerto Rico's Nutrient Plan

This document describes the approach to addressing nutrient over-enrichment, along with the plan to refine its current nutrient criteria in response to the USEPA requirements that states/territories adopt nutrient criteria for their waterbodies. This information will be used as the endpoint in the development of Nutrient TMDL.

3. TMDL development for Nutrient parameter

The amendment to the Regulation propitiates the moment to develop specific TMDLs for TP, in the assessment that even with the previous standard were exceeding the standard of the parameter of TP. Also the Regulation amended, leads properly identify the assessment units that are (in the top) in the first places in the priority list to develop TMDLs for TP.

The final outcome will be gather data to identified those AU that accomplished the parameters and therefore support the delist candidate assessment unit from the list 303 (d).

4. Modifying the Assessment Protocol for the Implementation of the Aquatic Life Criteria in Reservoirs of Puerto Rico

- a. Currently all the lakes in PR are included in the list 303 (d) for the parameter of Dissolved Oxygen (DO). The modification of the protocol implementation for aquatic life will promote the identification of those lakes that under the current protocol do not comply with the parameter of DO. The main objectives are:
 - i. Assess and identify with greater certainty the lakes that really are impacted by dissolved oxygen.
 - ii. Develop an appropriate strategy to restore the lakes/reservoirs identified that are impaired for DO.

5. Integrating Other Programs

a. Puerto Rico Non- Point Source Management Program

- i. This program has among its main objectives integrate the agencies that are partners in the protection, restoration and management of the environment and natural resources. In addition to integrating all areas of work of the EQB in the effort to work in a unified way, considering the priority areas identified, the intention is to integrate to other agencies in this effort.
- ii. Those waters having a high priority (highest priority ranking) will refer to the corresponding PREQB WQA Divisions: ESCD, LEPCD and UICD in order that they can implement their regulatory programs in a strategically effort. Also, the priority will be share with partnerships so they can include it as part of their work plans and thus can direct their efforts (programs, incentives, technical assistance, and

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outreach activities) to address the highest priority for these waters (please refers to Figure 1).

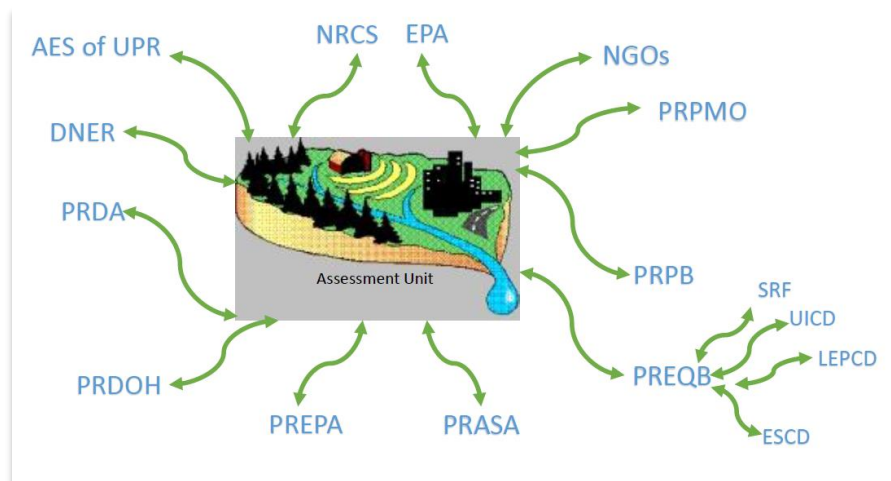


Figure 17: Federal and State Programs, and partners working together

iii. This strategy: (1) will enhance the strategically coordinated integration of the permit systems, (2) will enhance coordination and improve efficiency, (3) will improve communications among federal, state agencies and NGOs involved in non-point source management, (4) will identify cooperative activities, (5) will evaluate and promote guidance, and (6) will coordinate programs of federal and local agencies and NGOs to better utilize existing resources. The main goal will be:

1. Disseminate the priorities list of the PREQB so that it can be integrated into the decision-making of the related agencies and launch a concerted effort integrated in the priority areas.
2. Elaborate a most complete list with the protection and restoration projects or actions conducted in the priority areas.

b. Partnerships Project

i. San Juan Bay Estuary System

1. Assessment Protocol for Conducting Outfall Reconnaissance Inventory of San Juan Estuary Bay Watershed.
 - a. The scope of work basically is the identification of illicit discharge outfalls in a sizeable, highly dense populated watershed characterized in a significant portion by the lack of adequate sewage management infrastructure can be particularly challenging. The proposed screening protocol is based on guidelines established by USEPA for detection of illicit discharges. Field screening crews will

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inventory *all* recognizable outflows along the stream banks of the stream network of the SJBE. No distinction will be established *a priori* regarding the nature of the existing outfalls (i.e., pluvial, industrial, sewage). Field screening will be conducted during the “dry” season (as recommended by EPA guidelines) to avoid “dilution” from runoff or groundwater sources. Each identified outfall will be catalogued into a relational database linked to a GIS system. A final color coded classification will be assigned to each outfall as follows: unlikely (green); confirmed suspect (red), and initially evident (black). The field screening efforts will be complemented with a stream water quality assessment component to support watershed restoration efforts once the project is completed. The goal of this subcomponent of the proposal is to identify *critical* contributing subbasins (i.e., “hot zones”) that should receive highest priority in future watershed restoration projects. A sampling strategy will be established based on a subbasin delineation assemblage. To further document the existence of sewer cross contamination the study will include a *rotational sampling scheme* of selected major sub-basins in the San Juan Bay Estuary watershed under high flow (storm events) conditions.

Long-term Priorities 2016 - 2022 AUs

Table 52 shows the long-term vision AU’s 2016-2022 with its corresponding alternative approaches.

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Table 52: Long-term Priorities 2016 - 2022 AUs

WATER BODY NAME	AU ID	CAUSES OF IMPAIRMENTS	AREA	SQ miles	Approach
RIO GURABO	PRER14G1	Copper (0530), Cyanide (0720), Total Coliforms (1700), Turbidity (2500)	32512.22173	50.800346	1, 5a
RIO CAONILLAS	PRNR7C1	Arsenic (0510), Cyanide (0720)	23524.998676	36.75781	1, 5a
RIO GRANDE DE LOIZA	PRER14A2	Cyanide (0720), Pesticides (0200), Total Coliforms (1700), Turbidity (2500)	26498.345459	41.403665	1, 5a
RIO CAGUITAS	PRER14I	Cyanide (0720), Surfactants (0400), Thermal Modifications (1400), Total Coliforms (1700), Turbidity (2500)	12019.471726	18.780425	1, 5a
RIO LA PLATA	PRER10A1	Cyanide (0720), Turbidity (2500)	6762.208267	10.56595	1, 5a
RIO CIBUCO	PRNR9A	Cyanide (0720), Total Coliforms (1700), Turbidity (2500)	14250.254207	22.266022	1, 5a
RIO GRANDE DE LOIZA	PRER14A1	Copper (0530), Cyanide (0720), Low Dissolved Oxygen (1200), Turbidity (2500)	10851.784356	16.955913	1, 5a
RIO ESPIRITU SANTO	PRER16A	Copper (0530), Cyanide (0720), Lead (0550), Low Dissolved Oxygen (1200), pH (1000), Surfactants (0400), Turbidity (2500)	15760.761314	24.62619	1, 5a
RIO LA PLATA	PRER10A3	Cyanide (0720), Low Dissolved Oxygen (1200), Turbidity (2500)	12896.790193	20.151235	1, 5a

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WATER BODY NAME	AU ID	CAUSES OF IMPAIRMENTS	AREA	SQ miles	Approach
TÚNEL	PRNR7A3	Cyanide (0720)	19822.753445	30.973052	1, 5a
RIO LA PLATA	PRER10A5	Arsenic (0510), Copper (0530), Cyanide (0720), Lead (0550), Mercury (0560), Surfactants (0400), Turbidity (2500)	23893.320027	37.333313	1, 5a
RIO GUAYNABO	PRER12B	Cyanide (0720), Total Coliforms (1700), Turbidity (2500)	12590.494231	19.672647	1, 5a
RIO CULEBRINAS	PRWR95A	Arsenic (0510), Copper (0530), Cyanide (0720), Lead (0550), Pesticides (0200), Surfactants (0400), Total Coliforms (1700), Turbidity (2500)	30592.920494	47.801438	1, 5a
LAKE LA PLATA	PREL110A1	Arsenic (0510), Cyanide (0720), Low Dissolved Oxygen (1200), Phosphorus (0910)	7938.7658	12.404322	3, 4, 5a
LAKE GUAJATACA	PRNL3A1	Low Dissolved Oxygen (1200)	5824.294966	9.100461	3, 4, 5a
RIO TURABO	PRER14J	Arsenic (0510), Copper (0530), Cyanide (0720), pH (1000), Surfactants (0400), Turbidity (2500)	19006.0409	29.696939	1, 5a
RIO VALENCIANO	PRER14G2	Arsenic (0510), Copper (0530), Cyanide (0720), Surfactants (0400), Turbidity (2500)	12200.5404	19.063344	1, 5a
RIO GRANDE DE ARECIBO	PRNR7A2	Copper (0530), Cyanide (0720), Lead (0550), Pesticides (0200), Total	22446.225457	35.072227	1, 5a

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WATER BODY NAME	AU ID	CAUSES OF IMPAIRMENTS	AREA	SQ miles	Approach
		Coliforms (1700), Turbidity (2500)			
RIO GRANDE DE ARECIBO	PRNR7A1	Copper (0530), Cyanide (0720), Low Dissolved Oxygen (1200), Turbidity (2500)	7207.74912	11.262108	1, 5a
RIO CIALITO	PRNR8B	Cyanide (0720), Total Coliforms (1700), Turbidity (2500)	10776.451776	16.838206	1, 5a
RIO GRANDE DE MANATI	PRNR8A1	Copper (0530), Cyanide (0720), Turbidity (2500)	14214.337007	22.209902	1, 5a
RIO ROSARIO	PRWR77C	Cyanide (0720), Pesticides (0200), Turbidity (2500)	15356.703909	23.99485	1, 5a
RIO LA PLATA	PRER10A4	Cyanide (0720), Turbidity (2500)	4187.745159	6.543352	1, 5a
RIO HUMACAO	PRER33A	Copper (0530), Cyanide (0720), Lead (0550), Surfactants (0400), Total Coliforms (1700), Turbidity (2500)	14678.023253	22.934411	1, 5a
LAKE LOIZA	PREL14A1	Copper (0530), Lead (0550), Low Dissolved Oxygen (1200), Turbidity (2500)	7928.060628	12.387595	3, 4, 5a
RIO GRANDE DE AÑASCO	PRWR83A	Cyanide (0720), Low Dissolved Oxygen (1200), Turbidity (2500)	32194.001763	50.303128	1, 5a
LAKE DOS BOCAS	PRNL17A1	Arsenic (0510), Copper (0530), Cyanide (0720), Low Dissolved Oxygen (1200), pH (1000), Surfactants (0400)	10734.480607	16.772626	3, 4, 5a
RIO BAIROA	PRER14H	Phosphorus	5005.816097	7.821588	3

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WATER BODY NAME	AU ID	CAUSES OF IMPAIRMENTS	AREA	SQ miles	Approach
RIO GUAYANILLA	PRSR67A	Phosphorus	16090.163506	25.14088	3
RIO YAUCO	PRSR68A1	Phosphorus	20519.523795	32.061756	3
RIO GUAYABO	PRWR94A	Phosphorus	8200.426277	12.813166	3
SAN JUAN BAY ESTUARY SYSTEM	PREE13A2	Dissolve Oxygen, Ammonia, Oil and Grease, pH, Thermal Modification, Total Coliforms, Turbidity, NO ₂ +NO ₃ , Surfactants, Lead, Copper, Cyanide	16626.02176	25.978159	5b

APENDIX - III Public Notice

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<p>GOBIERNO DE PUERTO RICO Departamento de Recursos Naturales y Ambientales</p> <p>Lista 303(d) de Cuerpos de agua que exceden los Estándares de Calidad de Agua de Puerto Rico</p> <p>La Sección 303(d) de la Ley Federal de Agua Limpia (CWA, por sus siglas en inglés) de 1972, según enmendada, requiere que las jurisdicciones desarrollen y sometan cada dos años a la Agencia Federal de Protección Ambiental (EPA, por sus siglas en inglés) una lista de los cuerpos de agua que no cumplieron con los estándares de calidad de agua aplicables para los usos designados. Los usos designados para las aguas de Puerto Rico son: contacto primario (natación), contacto secundario (pesca y paseo en botes), propagación y preservación de especies deseadas incluyendo especies amenazadas y en peligro (vida acuática) y abasto crudo de agua potable. Para los cuerpos de agua que no cumplen con la norma aplicable a algún uso designado, la Ley requiere que se implementen medidas de control para los contaminantes. Las medidas de control deben ser aquellas que atiendan el problema causado por el incumplimiento al estándar aplicable al uso designado. Cada incumplimiento reflejado en la Lista 303(d) requiere el cálculo de la cantidad máxima del contaminante en incumplimiento que un cuerpo de agua puede recibir y aún así cumplir con los estándares de calidad de agua. Este cálculo se conoce como TMDL (por sus siglas en inglés). Los TMDLs incluyen reducciones para las fuentes de contaminación que están impactando al cuerpo de agua, las cuales cuando son alcanzadas, resultarán en el cumplimiento de los estándares de calidad de agua del cuerpo de agua impactado.</p> <p>El Departamento de Recursos Naturales y Ambientales (DRNA) como sucesor de la Junta de Calidad Ambiental (JCA) después de la promulgación del "Plan de Reorganización del Departamento de Recursos Naturales y Ambientales de 2018", Ley Núm. 171-2018, ha desarrollado el borrador de la Lista 303(d) para el ciclo 2020.</p> <p>El borrador de la Lista de Cuerpos de Agua Impactados para el ciclo 2020 y la Metodología de Evaluación estarán a la disposición del público para ser examinados, a petición del interesado mediante el envío de un correo electrónico a la siguiente dirección: waterquality@jca.pr.gov. Las partes interesadas o afectadas pueden someter sus comentarios por escrito al Sr. Ángel Meléndez Aguilar, Gerente del Área de Calidad de Agua, a la dirección electrónica antes indicada no más tarde de treinta (30) días a partir de la publicación de este aviso. La fecha límite para someter comentarios puede extenderse si se estima necesario o apropiado para el interés público.</p> <p>Todas las partes interesadas o afectadas podrán solicitar una vista pública. Dicha solicitud debe someterse por escrito al Secretario del DRNA a través de la Oficina de Secretaría a la siguiente dirección electrónica: ayudaalciudadano@drna.pr.gov, no más tarde de treinta (30) días a partir de la fecha de publicación de este aviso y deberá señalarse la razón o las razones que en la opinión del solicitante ameritan la celebración de la vista pública.</p> <p>Aprobado por la Autoridad Nominadora</p> <p>Certificación CEE-SA-2020-5576 (21 de febrero de 2020)</p> <p>Este anuncio se publicó conforme a lo requerido por la Ley sobre Política Pública Ambiental, Ley Núm. 416 del 22 de septiembre de 2004, según enmendada. El costo del Aviso Público es sufragado por el DRNA.</p> <p>Carr. 8838 Km 6.3 Sector El Cinco, Río Piedras, PR 00926 PO Box 366147, San Juan, PR 00926 787.999.2200 - 787.999.2303 • www.drna.pr.gov</p>  	<p>GOVERNMENT OF PUERTO RICO Department of Natural and Environmental Resources</p> <p>303(d) List Water bodies that exceed Puerto Rico's Water Quality Standards</p> <p>Section 303(d) of the Clean Water Act (CWA) of 1972, as amended, requires that the jurisdictions develop and submit a list of water bodies that do not meet the applicable water quality standards for designated uses every two years to EPA. The designated uses for waters of Puerto Rico are: primary contact (swimming), secondary contact (fishing and boating), propagation and preservation of desirable species, including threatened and endangered species (aquatic life) and raw source for drinking water. For water bodies that do not meet the applicable standard for a designated use, the Act requires that the state develop control measures for pollutants. Control measures should address the problem that caused the non-compliance of the standard for the designated use. Each impairment reflected on the 303(d) List requires a calculation of the maximum amount of the impairing pollutant that a water body can receive and still meet water quality standards. This calculation is called the TMDL. TMDLs include reduction for pollution sources impacting the water body which, when achieved, will result in the attainment of the water quality standard in the impaired water body.</p> <p>The Puerto Rico Department of Natural and Environmental Resources (PRDNER) as successor of the Environmental Quality Board (EQB) after the enactment of the "Reorganizational Plan of the Department of Natural and Environmental Resources of 2018", Act No. 171-2018, has developed the 303(d) draft List, for the 2020 cycle.</p> <p>The List of Impacted Water Bodies draft for the 2020 cycle and the Assessment Methodology will be available to the public for examination, at the request of the interested party by sending an email to the following address: waterquality@jca.pr.gov. Interested or affected parties may submit their comments in writing to Mr. Ángel Meléndez Aguilar, Water Quality Area Manager, at the aforementioned email address no later than thirty (30) days from the publication of this notice. The deadline for submitting comments may be extended if deemed necessary or appropriate in the public interest. All interested or affected parties may request a public hearing. Said request must be submitted in writing to the Secretary of PRDNER through the Secretary's Office at the following email address: ayudaalciudadano@drna.pr.gov, no later than thirty (30) days from the date of publication of this notice and the reason or reasons that in the opinion of the applicant merit the holding of the public hearing must be indicated.</p> <p>Approved by the Nominating Authority</p> <p>CEE-SA-2020-5576 certification (February 21, 2020)</p> <p>This announcement was published as required by the Law on Environmental Public Policy, Law No. 416 of September 22, 2004, as amended. The cost of the Public Notice is defrayed by the DRNA.</p> <p>Carr. 8838 Km 6.3 Sector El Cinco, Río Piedras, PR 00926 PO Box 366147, San Juan, PR 00926 787.999.2200 - 787.999.2303 • www.drna.pr.gov</p>  
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**APENDIX IV – Department of Natural and Environmental
Resources Determination**

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GOBIERNO DE PUERTO RICO

Departamento de Recursos Naturales y Ambientales

IN RE: PROMULGACIÓN DE LA LISTA DE CUERPOS DE AGUA IMPACTADOS PARA PUERTO RICO PARA EL CICLO 2020 ÁREA DE CALIDAD DE AGUA	RES. NÚM.: <u>N/A</u> SOBRE LISTA 303(D) DE PUERTO RICO REF: DIVISIÓN PLANES Y PROYECTOS ESPECIALES
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RESOLUCION Y NOTIFICACION

Se presentó ante la consideración del Secretario de Recursos Naturales y Ambientales el (28 de octubre de 2020), el memorando del Ing. Ángel R. Meléndez Aguilar, Gerente del Área de Calidad de Agua, , relacionado a la Lista de Cuerpos de Agua Impactados de Puerto Rico propuesta para el ciclo 2020, Lista 303(D), según la Ley Federal de Agua Limpia, 33 U.S.C, secc. 1313(d). La misma fue sometida a comentario público el 11 de septiembre de 2020. Las partes interesadas o afectadas podían someter sus comentarios por escrito, no más tarde de treinta (30) días a partir de la publicación de los avisos. Pasado el, período de cometarios establecido no se recibieron comentarios. Anteriormente, la Agencia de Protección Ambiental (EPA, por sus siglas en inglés) había presentado sus comentarios a la Lista propuesta, los cuales fueron acogidos e incorporados.

I. RESOLUCION:

Luego de evaluar la totalidad del expediente administrativo sobre la Lista de Cuerpos de Agua Impactados de Puerto Rico para el ciclo 2020, Lista 303(D), en virtud de los poderes y facultades que concede la Ley 416-2004, según enmendada, conocida como la Ley de Política Pública Ambiental, y los reglamentos promulgados a su amparo se RESUELVE:

- 13 A. Se ACOGE las recomendaciones del Área de Calidad de Agua, cuya copia se hace formar parte de la presente resolución.
- B. Se APRUEBA la Lista de Cuerpos de Agua Impactados de Puerto Rico para el ciclo 2020, Lista 303(D).
- C. Se ordena a la División de Planes y Proyectos Especiales del Área de Calidad de Agua proceder a tramitar la Lista 303(D), ante la EPA.



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II. APERCIBIMIENTO

La parte adversamente afectada por una resolución u orden parcial o final podrá, dentro del término de veinte (20) días desde la fecha de archivo en autos de la notificación de la resolución u orden, presentar una moción de reconsideración de la resolución u orden.

La agencia dentro de los quince (15) días de haberse presentado dicha moción deberá considerarla. Si la rechazare de plano o no actuare dentro de los quince (15) días, el término para solicitar revisión comenzará a correr nuevamente desde que se notifique dicha denegatoria o desde que expiren dichos quince (15) días, según sea el caso. Si se tomare alguna determinación en su consideración, el término de solicitar revisión empezará a contarse desde la fecha en que se archive en autos una copia de la notificación de la resolución de la agencia resolviendo definitivamente la moción de reconsideración. Tal resolución deberá ser emitida y archivada en autos dentro de los noventa (90) días siguientes a la radicación de la moción de reconsideración.

Si la agencia acoge la moción de reconsideración pero deja de tomar alguna acción con relación a la moción dentro de los noventa (90) días de ésta haber sido radicada, perderá jurisdicción sobre la misma y el término para solicitar la revisión judicial empezará a partir de la expiración de dicho término de noventa (90) días, salvo que la agencia, y por justa causa y dentro de esos noventa (90) días, prorrogue el término para resolver por un periodo que no excederá de treinta (30) días adicionales.

Si la fecha de archivo en autos de copia de la notificación de la orden o resolución es distinta a la del depósito en el correo de dicha notificación, el término se calculará a partir de la fecha del depósito del correo.

Una parte adversamente afectada por una orden o resolución final de una agencia y que haya agotado todos los remedios provistos por la agencia o por el organismo administrativo apelativo correspondiente podrá presentar una solicitud de revisión ante el Tribunal de Apelaciones, dentro de un término de treinta (30) días contados a partir de la fecha del archivo en autos de la copia de la notificación o resolución final de la agencia o partir de la fecha aplicable de las dispuestas en la Sección 3.15 de esta Ley Núm. 38 de junio de 2017, según enmendada, y anteriormente expresada, cuando el término para solicitar la revisión

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judicial haya sido interrumpido mediante la presentación oportuna de una moción de reconsideración.

NOTIFIQUESE Y ARCHIVESE

En San Juan, Puerto Rico, a 29 de octubre de 2020.


Rafael A. Machargo Maldonado

SECRETARIO