



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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DEC 05 2014

Mr. Carmelo Vázquez Fernández  
Acting Manager, Evaluation and Strategic Planning Area  
Puerto Rico Environmental Quality Board  
PO Box 11488  
San Juan, PR 00910-2588

Dear Mr. Fernández:

Thank you for your final submittal of Puerto Rico's 2014 303(d)/305(b) Integrated Report dated September 2, 2014. In accordance with Section 303(d) of the Clean Water Act (CWA) and Title 40 of the Code of Federal Regulations (CFR) Section 130.7, the U.S. Environmental Protection Agency (EPA) conducted a complete review of Puerto Rico's Section 303(d) list and supporting documentation, including the total maximum daily load (TMDL) priority ranking document dated September 2, 2014. The statutory and regulatory requirements and EPA's review of Puerto Rico's compliance with each requirement are described in the enclosed Supporting Documentation.

Section 303(d) of the CWA and EPA's implementing regulations at 40 CFR 130.7 require the Commonwealth to identify waters within its boundaries for which technology-based and other controls are not stringent enough to implement any water quality standards applicable to those waters. Under EPA's regulations at 40 CFR 130.7(b)(4), the Commonwealth is required to identify the pollutants causing the impairment of the listed waters. Section 303(d) further requires the Commonwealth to establish a priority ranking for the listed waters, taking into account the severity of the pollution and the designated uses of the listed waters. Finally, the Commonwealth is required to identify the waters targeted for TMDL development over the next two years.

Puerto Rico's 2014 Section 303(d) list identifies 581 waterbody segment/pollutant combinations requiring TMDLs. Of these, the Commonwealth has identified 46 as high priority waters targeted for development of TMDLs over the next two years.

The Commonwealth announced the availability of the 2014 Section 303(d) list in the *Primera Hora* newspaper on May 14, 2014, and provided a public comment period that ended on June 17, 2014. The Commonwealth prepared a response to comments summary document.

Based upon our review of the submittal, EPA approves Puerto Rico's 2014 Section 303(d) list. Specifically, EPA approves Puerto Rico's decision to list waterbody segments and associated pollutants set forth in the September 2, 2014 listing document along with the Commonwealth's priority ranking for these waters and pollutants. Should you have any questions concerning this approval, please do not hesitate to contact me at (212) 637-3724, or have your staff contact Nesmarie Negron at (212) 637-3883.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joan Leary Matthews', written in a cursive style.

Joan Leary Matthews, Director  
Clean Water Division

Enclosure

cc: Ángel R. Meléndez Aguilar, Chief  
The Evaluation and Strategic Planning Area w/encl.

## **Supporting Documentation for Review and Approval of Puerto Rico's 2014 303(d) List**

Pursuant to Section 303(d) of the Clean Water Act (CWA), the Commonwealth of Puerto Rico submitted its 2014 305(b)/303(d) Integrated Report (2014 Integrated Report) to the U.S. Environmental Protection Agency (EPA). The 2014 Integrated Report contains the Commonwealth's 2014 Clean Water Act Section 303(d) list (2014 303(d) list). Puerto Rico's 2014 303(d) list and supporting documentation are referred to below collectively as the "submission." EPA has reviewed the 2014 303(d) list and supporting documentation.

EPA reviewed the submittal based upon whether the Commonwealth had developed its list in compliance with Section 303(d) of the CWA and EPA's implementing regulations. This included whether Puerto Rico reasonably considered existing and readily available water quality-related data and information, and reasonably identified waters required to be listed. EPA has concluded that Puerto Rico developed its 2014 303(d) list in compliance with Section 303(d) of the CWA and 40 Code of Federal Regulations (CFR) Part 130.7. For the reasons set forth below, EPA approves Puerto Rico's 2014 303(d) list.

### **Identification of Water Quality Limited Segments for Inclusion on the 303(d) List**

Section 303(d)(1) of the CWA directs states (Section 502 of the Act defines "state" to include the Commonwealth of Puerto Rico) to identify those waters within their jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standards (WQS), and to establish a priority ranking for those waters, taking into account the severity of the pollution and the uses to be made of those waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of Section 303(d).

EPA regulations do not require states to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the CWA; (2) more stringent effluent limitations required by state or local authority; and (3) other pollution control requirements required by state, local or federal authority. See 40 CFR 130.7(b)(1).

### **Consideration of Existing and Readily Available Water Quality-Related Data and Information**

In developing 303(d) lists, states are required to assemble and evaluate all existing and readily available water quality-related data and information including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the state's most recent CWA Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to EPA. See 40 CFR 130.7(b)(5). In addition to these minimum categories, states are required to consider any other data and information that is existing and

readily available. EPA's guidance describes categories of water quality-related data and information that may be existing and readily available. See Guidance for Water Quality-Based Decisions: The TMDL Process, EPA Office of Water, 1991, EPA 440-4-91-001, Appendix C (EPA's 1991 Guidance). While states are required to evaluate all existing and readily available water quality-related data and information, states may decide to rely or not rely on particular data or information in determining whether to list particular waters depending on their listing methodology.

In addition to assembling and evaluating all existing and readily available water quality-related data and information, EPA regulations at 40 CFR 130.7(b)(6) require states to submit documentation in support of determinations to rely or not rely on particular data and information for list decisions. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; (3) documentation to support decisions not to use particular data and information, as well as documentation to support decisions to list or not list waters; and (4) any other reasonable information requested by EPA.

Consistent with EPA's guidance, Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates - EPA841-B-97-002A and EPA841-B-97-002B, 1997, and Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act, July 29, 2005 ("EPA's 2006 Integrated Report Guidance"), the Puerto Rico Environmental Quality Board (PREQB) developed a 2014 Consolidated Assessment and Listing Methodology (CALM) in order to integrate the monitoring and assessment activities under Sections 305(b) and 303(d). The PREQB's CALM describes the process for evaluating and consolidating monitoring data and information. The PREQB incorporates its Methods Document into its Integrated Report. The PREQB's Integrated Report Submittal consists of the following parts: (1) Segmentation Criteria and Waterbody Segment Definition; (2) Category Determination; (3) Water Quality Assessment by Designated Use; (4) Listing Criteria; and (5) Priority Ranking of the 2014 303(d) list.

PREQB has established six monitoring networks from which it collects water quality data and information. These are the Surface Water, Clean Lakes, Nonpoint Sources, Groundwater, Coastal, and Beach Monitoring Networks. These networks provide physical, chemical and biological water quality data for each type of water. PREQB also receives water quality data and information from local governmental agencies and organizations pursuant to Puerto Rico Law No. 416 (September 22, 2004), which requires any agency, office, instrumentality, public corporation or municipality of Puerto Rico that receives or generates scientific research, work or studies regarding the environment and natural resources to submit a copy of the research, work or study to PREQB. In addition, for the 2014 303(d) listing cycle, PREQB sent letters, on August 29, 2013, soliciting chemical and biological data on water bodies along with information pertaining to the quality control procedures that were used to generate the data, to a wide variety of organizations, including academic institutions, government agencies and environmental organizations. Once received, PREQB assembles all existing and readily available data and evaluates this data in accordance with its CALM.

The Puerto Rico 2014 Integrated Report identifies an additional 11 assessment units from the 2012 Integrated Report. These are:

- Rio Santiago (Rio Grande De Arecibo Basin) (PRNR7A1a)
- Rio Espiritu Santo (PRER16A1)
- Rio Mameyes (PRER17A1)
- Rio Sabana (PRER19A1)
- Rio Santiago (Rio Santiago Basin) (PRER29A1)
- Rio Anton Ruiz Quebradada Mulas (PRER31A1)
- Rio Guayanes (PRER35A1)
- Quebrada Del Agua (PRSR64A1)
- Cano Merle (PRWK78A1)
- Cano Boquilla (PRWK82A1)
- Cano Boquilla (PRWK82A2)

The EPA's 2006 Integrated Reporting Guidance recommends that the Integrated Report contain the following five categories. After it has evaluated all existing and readily available data and information, PREQB, in accordance with its CALM and based on designated use support, places assessment units in one of the following five categories in its Integrated Report:

- Category 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed;
- Category 4: Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed;
- Category 3: There is insufficient available data and/or information to make a use support determination;
- Category 2: Available data and/or information indicate that some, but not all of the designated uses are supported; and
- Category 1: All designated uses are supported and no use is threatened.

Assessment units placed in Category 5 of the Integrated Report require a TMDL. Category 5, therefore, is the Commonwealth's 303(d) list.

Assessment units on the 303(d) list are grouped by basin. Each listing contains the assessment unit name, the assessment unit identification number, the impairment type, and the impairment source. The 2014 303(d) list contains 581 assessment unit/pollutant combinations.

To ensure that all impaired waters are listed, EPA reviewed the Commonwealth's description of the data and information in the 2014 Integrated Report and the methodology used for identifying and categorizing assessment unit/pollutant combinations, and compared the assessment unit/pollutant combinations listed in 2014 with those listed in 2012. The EPA concluded that the Commonwealth properly assembled and evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 CFR 130.7(b)(5).

## Delistings

The Commonwealth delisted 151 assessment unit/pollutant combinations from the 2012 303(d) list. As per 40 CFR 130.7(b)(6)(iv), Puerto Rico has shown good cause to delist these 151 waterbody/pollutant combinations based on one of the following reasons:

1. Approval or establishment by EPA of a TMDL since the last Section 303(d) list

39 waterbody/pollutant combinations have been delisted due to completion of Fecal Coliform TMDLs. These are:

Rio Guajataca (PRNR3A2)  
Quebrada Las Sequias (PRNQ3B)  
Rio Hondo (PRER11A)  
Rio Bayamon (PRER12A1)  
Rio Bayamon (PRER12A2)  
Rio Guaynabo (PRER12B)  
Rio Grande De Loiza (PRER14A1)  
Rio Canovanas (PRER14B)  
Rio Canovanillas (PRER14C)  
Rio Herrera (PRER15A)  
Rio Espiritu Santo (PRER16A)  
Rio Mameyes (PRER17A)  
Rio Fajardo (PRER22A)  
Rio Santiago (PRER29A)  
Rio Humacao (PRER33A)  
Rio Candelerero (PRER34A)  
Rio Guayanes (PRER35A)  
Rio Maunabo (PRER37A)  
Rio Seco (PRSR51A)  
Quebrada Aguas Verdes (PRSQ53A)  
Rio Niguas De Salinas (PRSR54A)  
Rio Descalabrado (PRSR58A)  
Rio Guayanilla (PRSR67A)  
Rio Yauco (PRSR68A1)  
Rio Loco (PRSR69A1)  
Rio Loco (PRSR69A2)  
Rio Guanajibo (PRWR77A)  
Rio Rosario (PRWR77C)  
Rio Duey Y Rio Hoconuco (PRWR77E)  
Quebrada Grande De Calvache (PRWQ88A)  
Rio Herrera (PREE15A)  
Rio Espiritu Santo (PREE16A)  
Rio Humacao (PREE33A)  
Rio Candelerero (PREE34A)  
Rio Guayanes (PREE35A)

Cano Santiago (PREE35.1)  
San Juan Bay Estuary (PREE13A1)  
San Juan Bay Estuary (PREE13A2)  
Rio Demajagua (PREE23A)

## 2. WQS Attained due to Change in WQS

59 waterbody/pollutant combinations have been delisted due to applicable WQS attainment due to a change in WQS. These are:

Rio Guajataca (PRNR3A1) for Arsenic  
Rio Guajataca (PRNR3A2) for Arsenic  
Rio Grande De Arecibo (PRNR7A1) for Arsenic  
Rio Grande De Arecibo (PRNR7A2) for Arsenic  
Tunel (PRNR7A3) for Arsenic  
Rio Tanama (PRNR7B2) for Arsenic  
Rio Grande De Manati (PRNR8A1) for Arsenic  
Rio Grande De Manati (PRNR8A2) for Arsenic  
Rio Cialito (PRNR8B) for Arsenic  
Rio Orocovis (PRNR8E1) for Arsenic  
Rio Cibuco (PRNR9A) for Arsenic  
Rio De La Plata (PRER10A1) for Arsenic  
Rio De La Plata (PRER10A3) for Arsenic  
Rio De La Plata (PRER10A4) for Arsenic  
Rio Guadiana (PRER10E) for Arsenic  
Rio Bayamon (PRER12A1) for Arsenic  
Rio Bayamon (PRER12A2) for Arsenic  
Rio Guaynabo (PRER12B) for Arsenic  
Rio Grande De Loiza (PRER14A1) for Arsenic  
Rio Grande De Loiza (PRER14A2) for Arsenic  
Rio Gurabo (PRER14G1) for Arsenic  
Rio Bairoa (PRER14H) for Arsenic  
Rio Caguitas (PRER14I) for Arsenic  
Rio Espiritu Santo (PRER16A) for Arsenic  
Rio Fajardo (PRER22A) for Arsenic  
Rio Humacao (PRER33A) for Arsenic  
Rio Guayanes (PRER35A) for Arsenic  
Rio Maunabo (PRER37A) for Arsenic  
Rio Grande De Patillas (PRSR43A2) for Arsenic  
Rio Coamo (PRSR57A2) for Arsenic  
Rio Bucana-Cerrillos (PRSR62A1) for Arsenic  
Rio Portugues (PRSR63A) for Arsenic  
Rio Guayanilla (PRSR67A) for Arsenic  
Rio Guanajibo (PRWR77A) for Arsenic  
Rio Rosario (PRWR77C) for Arsenic  
Rio Duey Y Rio Hoconuco (PRWR77E) for Arsenic

Rio Yaguez (PRWR79A) for Arsenic  
Rio Grande De Anasco (PRWR83A) for Arsenic  
Rio Casey (PRWR83C) for Arsenic  
Rio Humata (PRWR83D) for Arsenic  
Rio Mayaguecillo (PRWR83F) for Arsenic  
Rio Guaba (PRWR83G) for Arsenic  
Rio Blanco (PRWR83H) for Arsenic  
Rio Prieto (PRWR83I) for Arsenic  
Rio Culebrinas (PRWR95A) for Mercury  
Rio Cano (Rio Canas) (PRWR95B) for Arsenic  
Quebrada Grande (Sector Cuchillas) (PRWQ95C) for Arsenic  
Quebrada Las Marias (PRWQ95D) for Arsenic  
Quebrada La Salle (PRWQ95F) for Arsenic  
Quebrada El Salto (PRWQ95G) for Arsenic  
Quebrada Grande De La Majagua (PRWQ95H) for Arsenic  
Quebrada Salada (PRWQ95I) for Arsenic  
Rio Sonador (PRWR95J) for Arsenic  
Rio Guatemala (PRWR95K) for Arsenic  
Lago Guajataca (PRNL3A1) for Arsenic  
Lago Loiza (PREL14A1) for Arsenic  
San Juan Bay Estuary (PREE13A2) for Arsenic  
San Juan Bay Estuary (PREE13A3) for Arsenic  
Laguna Tortuguero (PRNN0006) for Arsenic

### 3. Original Basis for Listing was Incorrect

3 waterbody/pollutant combinations have been delisted due to a lack of data and/or information to determine water quality status at the time of listing; therefore the original basis for listing was incorrect. These are:

Rio Juan Martin (PRER20A) for Fecal Coliform  
Quebrada Frontera (PREQ32A) for Fecal Coliform  
Quebrada Emajagua (PREQ36A) for Fecal Coliform

3 waterbodies were assessed using a standard that is not applicable. These are:

San Juan Bay Estuary (PREE13A1) for Phosphorus  
San Juan Bay Estuary (PREE13A1) for Ammonia  
Coastal Shoreline (Isla de Cabras to Punta del Morro) (PREC11) for Ammonia

### 4. WQS Attained; the Reason for Recovery Unspecified

47 waterbody/pollutant combinations have been delisted due to applicable WQS attainment; reason for recovery unspecified. These are:

Rio Guajataca (PRNR3A1) for Dissolved Oxygen  
Rio Guajataca (PRNR3A1) for Turbidity  
Rio Guajataca (PRNR3A2) for Turbidity  
Tunel (PRNR7A3) for Turbidity  
Rio Limon (PRNR7C2) for Dissolved Oxygen  
Rio Tanama (PRNR7B2) for pH  
Rio Cialito (PRNR8B) for Copper  
Rio Cialito (PRNR8B) for Surfactants  
Rio Cibuco (PRNR9A) for Surfactants  
Rio De La Plata (PRER10A4) for Copper  
Rio De La Plata (PRER10A4) for Surfactants  
Rio Bayamon (PRER12A1) for Lead  
Rio Guaynabo (PRER12B) for Surfactants  
Rio Guaynabo (PRER12B) for Copper  
Rio Guaynabo (PRER12B) for Lead  
Rio Grande De Loiza (PRER14A1) for Surfactants  
Rio Grande De Loiza (PRER14A2) for Surfactants  
Rio Bairoa (PRER14H) for Surfactants  
Rio Maunabo (PRER37A) for Surfactants  
Rio Guayanilla (PRSR67A) for Thermal Modifications  
Rio Guayanilla (PRSR67A) for Turbidity  
Rio Loco (PRSR69A1) for Surfactants  
Rio Guanajibo (PRWR77A) for Surfactants  
Rio Guanajibo (PRWR77A) for Ammonia  
Rio Duey Y Rio Hoconuco (PRWR77E) for Surfactants  
Rio Duey Y Rio Hoconuco (PRWR77E) for Turbidity  
Rio Humata (PRWR83D) for Surfactants  
Quebrada Grande De Calvache (PRWQ88A) for Dissolved Oxygen  
Rio Cano (Rio Canas) (PRWR95B) for Lead  
Rio Cano (Rio Canas) (PRWR95B) for Surfactants  
San Juan Estuary (PREE13A2) for Mercury  
San Juan Estuary (PREE13A3) for Ammonia  
San Juan Estuary (PREE13A3) for Surfactants  
San Juan Estuary (PREE13A3) for Phosphorus  
Laguna Tortuguero (PRNN0006) for Surfactants  
Laguna Tortuguero (PRN0006) for Fecal Coliform

Coastal Shoreline:

Punta Morrillos to Punta Manati (PRNC04) for Dissolved Oxygen  
Punta Salinas to Rio Bayamon Mouth (PREC10B) for Fecal Coliform  
Punta Vacia Talega to Punta Miquillo (PREC16) for Enterococcus Bacteria  
Cabezas de San Juan to Punta Barrancas (PREC19) for Fecal Coliform  
Punta Lima to Morro de Humacao (PREC25) for Fecal Coliform  
Punta Lima to Morro de Humacao (PREC25) for Enterococcus Bacteria  
Punta Guayanes to Punta Quebrada Honda (PREC28C) for Fecal Coliform  
Punta Viento to Punta Figuras (PRSC32) for Fecal Coliform

Punta Ola Grande to Punta Petrona (PRSC34) for Fecal Coliform  
Punta Guanajibo to Punta Algarrobo (PRWC48) for Fecal Coliform  
Punta Guayanes to Punta Quebrada Honda (PREC28C) for Enterococcus Bacteria

### **Priority Ranking**

EPA regulations codify Section 303(d)(1)(A) of the Clean Water Act, which requires states to establish a priority ranking for listed waters. The regulations at 40 CFR 130.7(b)(4) require states to prioritize waters on their Section 303(d) lists for TMDL development, and to identify those waterbody segments targeted for TMDL development in the next two years. In prioritizing and targeting waters, states must take into account the severity of the pollution and the uses of such waters. See Section 303(d)(1)(A) of the Act. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreation, economic, and aesthetic importance of particular waters, degree of public interest and support and state or national policies and priorities. See *57 Federal Register* 33040, 33045 (July 24, 1992) and EPA's 1991 Guidance.

The PREQB prioritizes assessment units for TMDL development in accordance with its CALM and the Puerto Rico Unified Watershed Assessment and Restoration Activities report (1998) (PRUWA). The PRUWA includes monitoring and assessment methodologies conducted and developed through the cooperative efforts of PREQB, the United States Department of Agriculture's Natural Resources Conservation Service, the United States Geological Survey and the EPA. The PRUWA also identifies priority watersheds for restoration activities. The PRUWA established 18 priority watersheds for targeted restoration activities. The following criteria are used under the PRUWA to prioritize watersheds: (1) the population size that the watershed serves as a source of drinking water; (2) the overall water quality conditions of the watershed; and (3) the number of pollution sources threatening waters throughout the watershed. The 18 priority watersheds targeted for restoration activities are identified under Restoration Priority Category I of the PRUWA and include the following:

Río Grande de Arecibo	Río La Plata	Río Cibuco
Río Grande de Loíza	Río Grande de Añasco	Río Guajataca
Río Yagüez	Río Bayamón	Río Piedras
Río Guanajibo	Quebrada Blasina	Río Grande de Manatí
Río Culebrinas	Río Hondo	Río Grande de Patillas
Río Coamo	Río Guayanilla	Río Blanco

The PREQB's CALM adopts the priority watersheds identified in the PRUWA as high priority basins. The PREQB's CALM considers all assessment unit/pollutant combinations on its 303(d) list located within the priority watersheds identified in the PRUWA as high priority for TMDL development.

The Commonwealth's 2014 Section 303(d) list identifies 581 assessment unit/pollutant combinations still requiring TMDLs. The PREQB has targeted 46 of these assessment unit/pollutant combinations for TMDL development over the next two years.

In addition to the assessment unit/pollutant combinations on Puerto Rico's 2014 303(d) list that are located within high priority basins, the PREQB established protocols to designate the remaining assessment unit/pollutant combinations on the 2014 303(d) list as medium or low priority for TMDL development. Medium and low priority assessment unit/pollutant combinations are located in medium or low priority basins respectively. Medium priority basins are watersheds in which fifty percent or more of the waters are identified as impaired. Low priority basins are watersheds in which less than fifty percent of the waters are identified as impaired.

The EPA has reviewed the Commonwealth's priority ranking of listed waters for TMDL development and concludes that the Commonwealth properly took into account the severity of pollution and the uses of the waters. The EPA believes that the 46 unit/pollutant combinations selected by the Commonwealth for TMDL completion over the next two years is an appropriate target for near-term TMDL development.

### **Public Participation**

On May 14, 2014, the Commonwealth published the availability of the 2014 303(d) list in one local newspaper, *Primera Hora*. The thirty-day public comment period ended on June 17, 2014. A public hearing was held on June 17, 2014, as part of the Commonwealth's public participation process. The PREQB sufficiently addressed the EPA's concerns and responded to comments received.

