



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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OCT 11 2007

Carlos W. López Freytes, Esq.
President
Puerto Rico Environmental Quality Board
PO Box 11488
San Juan, PR 00910-2588

Dear Mr. Lopez:

On February 2, 2007, the U.S. Environmental Protection Agency (EPA) received the Commonwealth of Puerto Rico's 2006 Water Quality Inventory and List of Impaired Waters Report. Additional clarification to the submission was provided by two (2) amendments dated June 5, 2007 and August 24, 2007. EPA action is only required on Category 5 waters, which constitute the 303(d) List. EPA has conducted a complete review of the list and supporting documentation and information. Based on this review, EPA has determined that the Commonwealth of Puerto Rico's 2006 list of water quality-limited segments requiring Total Maximum Daily Loads (TMDLs) meets the requirements of Section 303(d) of the CWA and EPA's implementing regulations under 40 CFR Part 130.7. Therefore, EPA hereby approves the Commonwealth of Puerto Rico's 2006 Section 303(d) list. The statutory and regulatory requirements, and EPA's review of the Commonwealth of Puerto Rico's compliance with each requirement, are described in the support documentation enclosed.

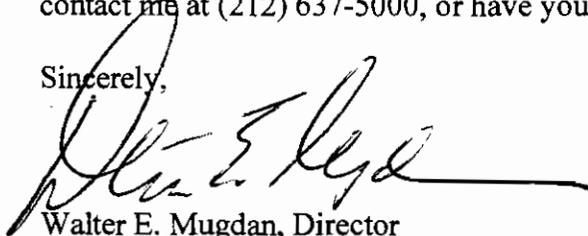
Section 303(d) of the Clean Water Act (CWA) and EPA's implementing regulations at 40 CFR Part 130.7 require the Commonwealth of Puerto Rico to identify those waters within its boundaries for which technology-based and other controls are not stringent enough to implement any water quality standards applicable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

Based upon a new segmentation system, described in the enclosed support documentation, the Commonwealth of Puerto Rico's 2006 303(d) List identifies five hundred and twenty (525) waterbody segment/pollutant combinations still requiring TMDLs. Three hundred and seventy-seven (377) of these waterbody segment/pollutant combinations are located in high priority basins. Twenty-four (24) of these waterbody segments have been identified as high priority waters targeted for development of TMDLs over the next two years.

On August 2, 2006, the Commonwealth of Puerto Rico announced the availability of the 2006 303(d) list in two local newspapers, El Nuevo Dia and El Vocero. A thirty (30) day public comment period was provided which ended with a public hearing on the 2006 303(d) List on September 6, 2006.

EPA hereby approves the Commonwealth of Puerto Rico's 303(d) list pursuant to 40 CFR 130.7(d). Should you have any questions concerning this approval, please do not hesitate to contact me at (212) 637-5000, or have your staff contact Antony Tseng at (212) 637-3777.

Sincerely,

A handwritten signature in black ink, appearing to read "Walter E. Mugdan", with a long horizontal flourish extending to the right.

Walter E. Mugdan, Director
Division of Environmental Planning and Protection

Enclosure

Supporting Documentation for Review and Approval of Puerto Rico's 2006 Section 303(d) List

On September 29, 2006, pursuant to Sections 303(d) and 305(b) of the Clean Water Act (the "Act"), the Commonwealth of Puerto Rico (the "Commonwealth" or "Puerto Rico") submitted to the U.S. Environmental Protection Agency ("EPA"), for its approval or disapproval, the Commonwealth's 2006 Water Quality Inventory and List of Impaired Waters Report (the "2006 Integrated Report"). Following EPA's receipt, on February 2, 2007, of the Governing Board's resolution on the Commonwealth's list of impaired waters and the public hearing on the list, Category 5 of the 2006 Integrated Report officially became the final submission of the Commonwealth's list of impaired waters. On June 5, 2007 and August 24, 2007, the Commonwealth submitted to EPA amendments to its list of impaired waters. (The list of impaired waters in Category 5 of the 2006 Integrated Report, as modified by the June 5, 2007 and August 24, 2007 amendments, will be referred to inclusively as the "2006 303(d) list").

EPA has reviewed the 2006 303(d) List, as well as the 2006 Integrated Report. EPA has concluded that Puerto Rico developed the 2006 303(d) list in compliance with Section 303(d) of the Act and 40 CFR 130.7. EPA's review is based on its analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed. For the reasons set forth below, EPA approves Puerto Rico's 2006 303(d) List.

Identification of Water Quality Limited Segments for Inclusion on Section 303(d) List

Section 303(d)(1) of the Act directs the Commonwealth to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard and to establish a priority ranking for such waters, which considers the severity of the pollution and the designated uses of such waters. 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 provide that the Commonwealth does not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (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 Section 303(d) lists, the Commonwealth is required to assemble and to 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 in the Commonwealth's most recent

report, prepared pursuant to Section 305(b) of the Act, as partially meeting or not meeting designated uses, or as threatened; (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 categories, the Commonwealth is required to consider any other data and information that is existing and readily available. EPA 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 440/4-91-001, EPA Office of Water, 1991, Appendix C ("EPA's 1991 Guidance"). While the Commonwealth is required to evaluate all existing and readily available water quality-related data and information, the Commonwealth may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring the Commonwealth to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 CFR 130.7(b)(6) require the Commonwealth to include, as part of its submissions to EPA, documentation in support of determinations to rely or not rely on particular data and information for listing 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; and (3) 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 Consolidated Assessment and Listing Methodology ("CALM") in order to integrate the monitoring and assessment activities under Sections 305(b) and 303(d). PREQB's CALM describes the process for the evaluation and consolidation of monitoring data and information to determine the levels of water quality and use support. PREQB incorporates its CALM into its Integrated Report. PREQB's Integrated Report consists of five, distinct 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 2006 303(d) List. Each section builds on the previous components to provide a comprehensive methodology. PREQB segments waters under the jurisdiction of the Commonwealth, into "assessment units" and assesses water quality standards attainment as specified by PREQB's CALM. The CALM was submitted to EPA as part of the 2006 Integrated Report and is the background document for the 2006 303(d) List.

For the 2006 Integrated Report and 2006 303(d) List, PREQB introduced a new segmentation system for inland waters assessments. PREQB condensed the total number of large basins (watersheds) from one hundred and two (102) to ninety-six (96), all within four, distinct

geographic regions: North, South, East, and West. PREQB delineated new assessment units (sub-basins) within these modified basins and incorporated multiple assessment units from the old stream reach and lake identification system. Changing from a stream reach unit to a sub-basin unit reduced the total number of assessment units from four hundred and seventy-one (471) in 2004 to two hundred and one (201) assessment units in 2006. As described in the background document for the 303(d) List (page 2) and the 2006 Integrated Report (page 12), each new assessment unit is comprised of one of the following:

- a section of the main basin, with the corresponding minor first order tributaries in their watersheds;
- a sub-basin represented by major first, second, and third order tributaries; or
- a lake from the dam up to the highest reach that defines the lake, and the immediate minor tributaries that discharge directly into the lake.

The sub-basin identification number represents the new assessment unit. Although PREQB introduced new assessment units for all inland waters and the San Juan Bay Estuary, the coastal extents and assessment unit identification names did not change from the 2004 Integrated Report and 303(d) List. PREQB expects to propose new coastal assessment units for the 2008 Integrated Report and 303(d) List.

The Commonwealth relies on EPA's 2006 Integrated Report Guidance to categorize waters in the 2006 Integrated Report according to the evaluation of available data. The Commonwealth defines the 2006 Integrated Report categories as follows:

- Category 5: impaired and requiring a Total Maximum Daily Load ("TMDL");
- Category 4: impaired or threatened but not requiring TMDL;
- Category 3: insufficient data for determining use attainment;
- Category 2: attaining some designated uses and insufficient data to determine attainment for other uses; and
- Category 1: waters attaining water quality standards for all designated uses.

PREQB evaluates readily available water quality data and information collected from the monitoring networks and submitted from other agencies and organizations to determine the appropriate category, as described above, for each assessment unit. To facilitate the development of the 2006 303(d) List, the Commonwealth published a public notice solicitation in two newspapers, El Nuevo Dia and El Vocero, on September 12, 2005. PREQB requested that all data submissions be received by October 31, 2005, to allow sufficient time for the review and consideration of all data and information under their CALM.

PREQB's CALM categorizes assessment units based upon designated use determinations, which are defined under five (5) surface water classes. Each class of water defines the surface water type, describes the specific designated uses for each water type, and determines the applicable narrative and numeric water quality criteria. The CALM also addresses issues of frequency of exceedance if not specified by the applicable water quality standards.

The 2006 303(d) List groups impaired assessment units by basin, providing information concerning the new assessment unit name, the new assessment unit identification number, impairment type and impairment source. In addition, PREQB's 2006 303(d) List crosswalks

the new assessment units with the 2004 assessments units and the associated 2004 303(d) List information. The 2006 303(d) List is comprised of five hundred and twenty five (525) assessment unit/pollutant combinations in the Commonwealth's basins.

PREQB amended the 2006 303(d) List on June 5, 2007, to add nineteen (19) coastal assessment unit/pollutant combinations. These 19 coastal assessment unit/pollutant combinations were on the 2004 303(d) list, and PREQB was not able to provide a justification to delist these waters citing time constraints. PREQB plans to prepare sufficient justification to delist these nineteen assessment unit/pollutant combinations in the next listing cycle.

PREQB has evaluated the data from Jobos Bay collected by the National Estuarine Research Reserve System under the National Oceanic & Atmospheric Administration (NOAA) as part of their effort to consider existing and readily available water quality-related data and information. Based on PREQB's field visit to the various stations located in the Jobos Bay Reserve Estuary, an adequate determination concerning the current water quality status of the assessment units that comprise Jobos Bay could not be made with the available data gathered to date. PREQB has noted that the low oxygen observations in this area may be natural. These assessment units were placed under Category 3 of the 2006 Integrated Report in EQB's August 24, 2007 amendment. Future water quality data and historical land use data will be evaluated as obtained.

EPA recommends that during its 2008 303(d) listing process, PREQB begin to acquire water quality data for the waters of Jobos Bay, review this data, as well as any additional data which may become available, and evaluate the impairment status of these waters for future Section 303(d) lists.

To ensure that all impaired waters are listed, EPA reviewed the Commonwealth's description of the data and information considered for the 2006 Integrated Report and the methodology employed for identifying and categorizing assessment unit/pollutant combinations and compared the assessment unit/pollutant combinations listed in 2006 with those listed in 2004.

EPA concludes 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).

Delisting

The Commonwealth did not delist any assessment unit or assessment unit/pollutant combination from the 2004 303(d) List. All 2004 303(d) listed assessment unit/pollutant combinations can be found within one or more of the resegmented 2006 303(d) assessment unit/pollutant combinations. A crosswalk between the 2006 and 2004 segmentation is included in the 2006 303(d) list.

EPA notes that EPA approved fecal coliform TMDLs in the Upper Rio Grande de Loiza watershed on September 26, 2007. EPA expects that the 2007 TMDL approvals of these waterbody/pollutant combinations will be addressed in Puerto Rico's 2008 CWA 303(d) list.

When delisting an assessment unit or an assessment unit /pollutant combination from future lists, EPA will ensure that the Commonwealth provides “good cause” for delisting those waters, as required by 40 CFR 130.7(b)(6)(iv).

Priority Ranking

EPA regulations also codify the requirement in Section 303(d)(1)(A) of the Act, that States 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 also to identify those waterbody segments targeted for TMDL development in the next two years. In prioritizing and targeting waters, the Commonwealth must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. See Section 303(d)(1)(A) of the Act.

The Commonwealth may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and State or national policies and priorities. See 57 FR 33040, 33045 (July 24, 1992), and EPA's 1991 Guidance.

Once assessed for water quality standards attainment, the PREQB prioritizes impaired assessment units for TMDL development in accordance with its CALM and the Puerto Rico Unified Watershed Assessment and Restoration Activities report (1998) (the “PRUWA”). PREQB’s CALM adopts the waters within the priority watersheds identified in the PRUWA as high priority waters. 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 EPA. The PRUWA also identifies priority watersheds for restoration activities. The PRUWA established eighteen (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 eighteen (18) priority watersheds are identified under Restoration Priority Category I of the PRUWA:

Rio Grande de Arecibo; Rio La Plata; Rio Cibuco; Rio Grande de Loiza; Rio Grande de Anasco; Rio Guajataca; Rio Yaguez; Rio Bayamon; Rio Piedras; Rio Guanajibo; Quebrada Blasina; Rio Grande de Manati; Rio Culebrinas; Rio Hondo; Rio Grande de Patillas; Rio Coamo; Rio Guayanilla; and Rio Blanco.

PREQB’s CALM adopts the priority watersheds identified in the PRUWA as high priority basins. PREQB’s CALM also adopts the waters within the priority watersheds identified in the PRUWA as high priority waters for TMDL development.

Based upon the new segmentation system, the Commonwealth’s 2006 Section 303(d) list identifies five hundred and twenty (525) assessment unit/pollutant combinations still requiring

TMDLs; three hundred and seventy-seven (377) of these assessment unit/pollutant combinations are located in high priority basins and are therefore considered high priority waters for TMDL development. In its August 24, 2007 amendment, PREQB identified twenty-four (24) of these assessment unit/pollutant combinations, located in the Rio Piedras (PREE13A2) and Quebrada Blasina (PREE13A3) basins, as waters targeted for TMDL development over the next two years. These waters and the basins they are contained within were chosen based on the particular ecological, economical, social, and cultural importance of the San Juan Bay Estuary System.

In addition to the waters on Puerto Rico's 2006 303(d) list that are located within high priority basins, PREQB established protocols to designate the remaining waters on the 2006 303(d) list as medium or low priority for TMDL development. 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. Because all of the remaining waters on the 2006 303(d) list are located within low priority basins, PREQB designated all of the remaining waters as low priority for TMDL development. A total of 148 assessment unit/pollutant combinations were designated as low priority for TMDL development.

Currently, no waters are designated as medium priority for TMDL development. The 2002 list described Lago Guajactaca as the sole medium priority water for TMDL development to address low dissolved oxygen and arsenic exceedances. Lago Guajactaca was delisted for arsenic in 2004, yet remains on the 2004 303(d) List for low dissolved oxygen. Because all lakes listed for low dissolved oxygen are listed as low priority for TMDL development, the Commonwealth decided to redesignate Lago Guajactaca as a low priority water for TMDL development.

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 such waters. EPA also believes that the three waterbodies selected by the Commonwealth for completion over the next two years are appropriate waters to target for near-term TMDL development.

Public Participation

On August 2, 2006, the Commonwealth published the availability of the 2006 303(d) List in two local newspapers, El Nuevo Dia and El Vocero. The thirty-day public comment period ended on Saturday, September 2, 2006. A public hearing was held on September 6, 2006, as part of the Commonwealth's public participation process. Aside from EPA's comments on the draft 2006 303(d) List, PREQB received one general comment, during the public hearing, which was a request for further description of the new assessment units of the 2006 303(d) List and their development. PREQB sufficiently addressed EPA concerns and the question posed by the sole commentor.