

**PUERTO RICO COASTAL NONPOINT PROGRAM  
NOAA/EPA DECISIONS ON CONDITIONS OF APPROVAL**

**FOREWORD**

This document contains decisions on conditions of approval placed on the coastal nonpoint pollution control program submitted by the Commonwealth of Puerto Rico pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). The Findings for Puerto Rico's coastal nonpoint program were issued on November 18, 1997. Since that time, Puerto Rico has undertaken a number of actions to address conditions of approval on its coastal nonpoint program. Based on those actions and on materials Puerto Rico has provided to document how the conditions have been met, the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA) find that Puerto Rico has satisfied all conditions of approval.

This document is organized in the same fashion as the Findings for Puerto Rico's coastal nonpoint program. Where the original Findings included a condition, this document repeats the condition, includes a decision as to whether the condition has been satisfied, and provides a rationale for the decision. For further understanding of terms in this document and the basis for these decisions, the reader is referred to the following:

*Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* (EPA, January 1993)

*Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance* (NOAA and EPA, January 1993)

*Flexibility for State Coastal Nonpoint Programs* (NOAA and EPA, March 1995)

*Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA)* (NOAA and EPA, October, 1998)

**FINAL APPROVAL DECISION**

NOAA and EPA find that Commonwealth of Puerto Rico has satisfied all conditions placed on approval of the Puerto Rico coastal nonpoint pollution control program submitted to NOAA and EPA pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990. Therefore, Puerto Rico's coastal nonpoint program meets all program requirements and is hereby fully approved, constituting a final approval decision for the program.

Please note that the approval decision made for the Puerto Rico coastal nonpoint program does not relieve the Commonwealth of any requirements under the Endangered Species Act.

**BACKGROUND ON GOVERNOR'S EXECUTIVE ORDER**

On February 8, 1999, Governor Pedro Roselló signed Executive Order OE-1999-08 which adopted as public policy the “mandatory management measures” contained in the 6217(g) guidance. Further, the Order created a Committee for the Control of Sources of Nonpoint Pollution in the Coastal Zone (Committee) composed of all relevant agencies which is charged with “the development and implementation” of a “plan for the Control of Sources on Nonpoint Pollution in Puerto Rico’s Coastal Zone” (Plan). The Order mandates that all agencies adopt the 6217(g) measures as “the official technical guidelines of the Plan.” Once NOAA and EPA approve the Plan, all public activities and granting of authorizations or permits for public or private actions must require that relevant 6217(g) measures will be implemented.

The Order calls for the agencies which are members of the Committee to adopt the 6217(g) measures and integrate them into their existing decision-making processes as soon as possible, but not later than two years from the effective date of the Order. The Order also lists several specific legal and administrative mechanisms which the Commonwealth agencies must use to demonstrate compliance with the measures. Finally, the Order requires the Commonwealth agencies which are members of the Committee to, “jointly develop and implement, under their respective legal frameworks, the public policies, plans, programs, or organizational structures required to assure the effective implementation of required management measures.”

On October 8, 1999, the Puerto Rico Department of Natural and Environmental Resources (DNER) and Environmental Planning Board (EQB) submitted to NOAA and EPA the Puerto Rico Coastal Nonpoint Pollution Control Update (Update) which contains detailed 5-year plans and a 15-year strategy to implement the Executive Order and address the conditions on Puerto Rico’s coastal nonpoint program findings. The Update represents the work of the Committee, and contains specific actions to address conditions in the agriculture, urban, marinas and recreational boating, hydromodification, and wetlands and riparian areas categories. It also addresses conditions on technical assistance, critical coastal areas, additional management measures, and monitoring. DNER and EQB submitted further information on April 7, 2000, in response to NOAA and EPA questions.

NOAA and EPA find that the Executive Order and the implementation strategies contained in the Update provide for the development and implementation of management measures in conformity with the 6217(g) measures. The Executive Order provides an adequate enforceable policy and mechanism to ensure implementation of the 6217(g) measures. The Order compels the Commonwealth agencies to revise their programs based on the technical standards of the 6217(g) measures within two years. This includes direct agency activities and authorizations for other public and private activities. The specific implementation strategies are discussed below in the source category sections.

**AGRICULTURE**

**CONDITION:** Within three years, Puerto Rico will include in its program enforceable policies and mechanisms to ensure implementation of the erosion and sediment control and confined animal facilities management measures. Within one year, Puerto Rico will develop a strategy (in accordance with Section XIV, page 18) to implement the nutrient management, pesticide management, and grazing management measures throughout the 6217 management area.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** The Sediment and Erosion Control regulations (CES regulations) referenced in NOAA and EPA's conditional approval findings were promulgated and have been implemented since March 1998. Agricultural operations not using best management practices compatible with the 6217(g) measures are subject to the regulations. The Update describes Puerto Rico's three year plan to design and implement the Erosion and Sedimentation component of Soil Conservation plans on agricultural lands within priority watersheds (per the Puerto Rico Unified Watershed Assessment and Restoration Priorities - October 1998) and for large farming operations island-wide. In 2002-03, Puerto Rico will begin permitting farms without Soil Conservation Plans island-wide.

The Environmental Quality Board (EQB) intends to implement the Executive Order regarding the combined animal facilities measures through enforcement of the Order's sixth element, which charges agencies which are members of the Committee to adopt the 6217(g) measures as their official technical guidelines. Enhanced implementation will occur once the EQB implements the Confined Animal Fecal Waste Control Regulation (AFWCR) and its associated Technical Manual. The AFWCR applies to any confined animal facility that generates five cubic feet of animal fecal waste per day or more, and therefore addresses all facilities subject to the 6217(g) measures.

Puerto Rico's findings call for the Commonwealth to develop a strategy to implement the nutrient management, pesticide management, and grazing management measures throughout the 6217 management area. The Update includes this strategy which NOAA and EPA have found adequate to meet the condition. Similar to the erosion and sediment control strategy described above, for the remaining agricultural measures, Puerto Rico will focus its attention initially on training of Department of Agriculture agronomists and providing technical assistance to operators within priority watersheds. Then, beginning in 2002, EQB will begin notifying operators who have not developed Nutrient Management Plans, Pesticide Management and Application Plans, and Plans for Pasture Grounds, of the requirement that they do so or be subject to inspection and enforcement actions. NOAA and EPA support Puerto Rico's plans to amend the Pesticide Act to specifically incorporate the 6217(g) measures as an added level of management complementary to the Pesticide Management and Application Plans.

**NEW DEVELOPMENT**

**CONDITION:** Within three years, Puerto Rico will include in its program management measures for new development. Within one year, Puerto Rico will develop a strategy (in accordance with Section XIV, page 18) to implement the new development management measure throughout the 6217 management area.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** The Executive Order has adopted the 6217(g) measures as policy. To fully implement the Order, Puerto Rico will amend applicable Planning Board Regulations to incorporate the 6217(g) measures by February 1, 2001. These regulations include the Zoning Regulations of Puerto Rico, the Zoning Regulations for the Coastal Zones and The Access to Beaches and Coasts of Puerto Rico, and the Subdivision and Urbanization Regulations. First, Puerto Rico will conduct workshops for agency staff and industry groups explaining the new development measure. Then the Planning Board regulations will be amended. Finally, the Regulation and Permit Administration (RPA) will verify that developers incorporate appropriate practices into projects when the RPA reviews certified design drawings. The Planning Board, EQB, and DNER will also call developers' attention to the measure during other phases of project review, such as issuance of siting permits and the environmental review process.

**WATERSHED PROTECTION AND SITE DEVELOPMENT**

**CONDITION:** Within three years, Puerto Rico will include in its program management measures in conformity with the 6217(g) guidance for limiting the disturbance of natural drainage features. Within one year, Puerto Rico will develop a strategy (in accordance with Section XIV, page 18) to ensure implementation of the site development management measure throughout the 6217 management area.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** NOAA and EPA's findings determined that the Commonwealth had management measures to limit the disturbance of natural drainage features in selected areas, but not throughout the 6217 management area. Further, the findings identified gaps in Puerto Rico's planning and regulatory framework that precluded full implementation of the site development measure. Under the aegis of the Executive Order and implementing strategies contained in the Update, Puerto Rico is developing a set of unified GIS layers (UGIS) which will enable the Commonwealth to complete these programs island-wide. The UGIS will identify priority areas, areas to be avoided, and areas for acquisition. To most effectively use UGIS, Puerto Rico will develop an Interagency Agreement to establish the specific layers to be developed and their use in project siting and permitting decision making. This action was referenced in the findings with NOAA and EPA's support, as a way to, "integrate all the existing statutory, regulatory and policy mechanisms that directly or indirectly call for watershed protection into a coherent program."

The Executive Order requires that the 6217(g) measures be incorporated into relevant programs by February 2001. Puerto Rico has shown that the UGIS, backed by the Interagency Agreement, enables the Commonwealth to meet the watershed protection and site development condition.

### **CONSTRUCTION SITE EROSION AND SEDIMENT and CHEMICAL CONTROL**

**CONDITION:** Within three years, Puerto Rico will include in its program management measures in conformity with the 6217(g) guidance for construction site erosion and sediment control and construction site chemical control. Within three years, Puerto Rico will include in its program enforceable policies and mechanisms to ensure implementation of the construction site erosion and sediment control and construction site chemical control management measures throughout the 6217 management area.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** In March 1998, Puerto Rico promulgated the Sediment and Erosion Control regulations (CES regulations). The associated draft Technical Manual contains practices in accordance with the 6217(g) measures for construction site erosion and sediment control and chemical control, and, as required by the Executive Order, is currently being revised with specific language and directives based on the 6217(g) measures. The Executive Order requires that the 6217(g) measures be implemented, and the order also requires that the 6217(g) guidance document be used as a manual until the draft Technical Manual is approved. The CES regulations combined with the Executive Order will ensure implementation of the measures throughout the Commonwealth.

### **EXISTING DEVELOPMENT**

**CONDITION:** Within three years, Puerto Rico will include in its program management measures to limit destruction of natural conveyance systems and identify priority pollutant reduction opportunities and establish a schedule for the implementation of appropriate controls in conformity with the 6217(g) guidance.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** Using the UGIS referenced above in the watershed protection and site development section, Puerto Rico will identify priority areas with natural conveyance systems, areas to be avoided, and areas for acquisition. To most effectively use UGIS, Puerto Rico will develop an Interagency Agreement to establish the specific layers to be developed and their use in project siting and permitting decision making. In addition, the Planning Board (PB), assisted by the Department of Natural and Environmental Resources (DNER) and EQB, will prepare an inventory of existing stormwater structures located in the Unified Watershed Assessment priority watersheds. That inventory will be the basis for identifying opportunities for improvements and implementing controls. Puerto Rico will begin developing the inventory in 2000, identify

opportunities for improvement beginning in 2001, and schedule the implementation of projects beginning the following year.

**NEW and OPERATING ONSITE DISPOSAL SYSTEMS (OSDS)**

**CONDITION:** Within three years, Puerto Rico will include in its program management measures in conformity with the 6217(g) guidance for: (1) denitrifying systems where nitrogen-limited surface waters may be adversely affected by excess nitrogen loadings from onsite systems; (2) adequate separation distances between new single family OSDS and ground water; and (3) inspections of new and operating systems for single family development.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** In the findings, NOAA and EPA encouraged Puerto Rico to adopt the Executive Order which would establish the 6217(g) measures as Commonwealth policy. Puerto Rico has done so, and both the Order and the implementation strategy for OSDS contained in the Update call on the EQB, the PB, the RPA, and the Department of Health to incorporate the 6217(g) measures into their regulations. The RPA promulgated the Uniform Building Code in 1997 to apply to OSDS in single family residences and adopt a standard four foot separation distance. (The Uniform Building Code replaces Planning Regulation #7.) The RPA and other agencies will adopt an Interagency Agreement and amend and clarify the UBC standards to ensure the 6217(g) measures are included. Once that is completed by February 2001, the agencies will conduct workshops for permit review personnel and field inspectors, engineers, and other professionals on how to implement the new standards. Puerto Rico will also develop criteria for defining and establishing unsuitable areas (including adjacent to nitrogen-limited surface waters) for placement of OSDS and incorporate that information into the UGIS.

**ROADS, HIGHWAYS, AND BRIDGES**

**CONDITION:** Within three years, Puerto Rico will include in its program measures in conformity with the 6217(g) management measures for roads, highways, and bridges. Within one year, Puerto Rico will develop a strategy (in accordance with Section XIV, page 18) to implement these management measures throughout the 6217 management area.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** The Update calls for Puerto Rico to finalize an Interagency Agreement between the Highway and Transportation Authority, Department of Public Works, DNER, and EQB to specifically incorporate the 6217(g) roads, highways, and bridges measures into all applicable projects, new and existing, irrespective of funding source. The Update further outlines how this agreement will be implemented through training of highway officials and engineers, and development of specifications for highway contracts.

## **MARINAS AND RECREATIONAL BOATING**

**CONDITION:** Within three years, Puerto Rico will develop management measures in conformity with the 6217(g) guidance for marina flushing, storm water runoff, fueling station design, liquid material management, and boat operation. Within one year, Puerto Rico will develop a strategy (in accordance with Section XIV, page 18) to implement management measures for petroleum control, boat cleaning and boat operation throughout the 6217 management area.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** The Executive Order will be implemented by a Memorandum of Agreement between DNER, EQB, and PB to establish the process by which the agencies will ensure that the 6217(g) measures are incorporated into permits for new and expanding marinas. Compliance with the measures will be sequentially addressed in EQB Environmental Impact Statement and/or Environmental Assessment documents, PB siting permits, DNER Maritime Zone and Submerged Lands Concessions, and RPA construction permits. For marina operation, Puerto Rico will require marinas to develop and implement BMP plans (based on 6217(g) guidance) and suitable Contingency Plans to manage solid and liquid wastes.

## **HYDROMODIFICATION**

**CONDITION:** Within three years, Puerto Rico will include in its program (1) a process to improve surface water quality and restore in-stream and riparian habitat through the operation and maintenance of existing modified channels; (2) management measures for erosion and sediment control and chemical and pollutant control at dams; (3) management measures for protection of surface water quality and in-stream and riparian habitat from the effects of dams; and (4) management measures for shorelines and stream banks. Within three years, Puerto Rico will include in its program enforceable policies and mechanisms to ensure implementation of the management measures for erosion and sediment control and chemical and pollutant control at dams throughout the 6217 management area.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** Puerto Rico is developing a process to improve surface water quality and restore in-stream and riparian habitat through the operation and maintenance of existing modified channels by improving and updating the Channel Operation and Maintenance plans of existing channels. The plan updates will be based on the 6217(g) measures, as required by the Executive Order.

In March 1998, Puerto Rico promulgated the Sediment and Erosion Control regulations (CES regulations). The associated draft Technical Manual contains practices in accordance with the 6217(g) measures for erosion and sediment control and chemical and pollutant control at dams (dams are not excluded from the regulations). The Executive Order requires that the 6217(g)

measures be implemented, and the order also requires that the 6217(g) guidance document be used as a manual until the draft Technical Manual is approved. Regulations combined with the Executive Order will ensure implementation of the measures throughout the Commonwealth. Puerto Rico will also develop a regulation to establish minimum flow criteria downstream of dams to maintain the chemical and biological integrity of the waterbodies. In the interim period while that project is underway, Puerto Rico will implement the criteria (based on Fish and Wildlife Service and DNER recommendations) through an MOA between EQB and DNER. The CES regulations and minimum flow criteria combined with the Executive Order will ensure implementation of the dams measures throughout the Commonwealth.

### **WETLANDS, RIPARIAN AREAS and VEGETATED TREATMENT SYSTEMS**

**CONDITION:** Within three years, Puerto Rico will include in its program management measures for the protection of wetlands and riparian areas in conformity with the 6217(g) guidance. Within one year the Commonwealth will develop a strategy (in accordance with Section XIV, page 18) to implement the management measure for protection of wetlands and riparian areas throughout the 6217 management area.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** To protect wetlands other than mangroves (which are subject to additional regulation) and riparian areas in locations outside the jurisdiction of the Maritime Zone Regulations, Puerto Rico is developing a wetlands inventory for the interior of the island, to be completed by January 2001. Once the inventory is established, the Commonwealth proposes a series of wetlands protection initiatives. They include revising a 1994 interagency agreement between EQB, PB, and DNER to incorporate the 6217(g) wetlands protection measure for critical areas, amending the EIS process to include a wetlands determination, and amending the Water Quality Standards Regulations to include wetlands as water resources and establish wetlands designated uses.

### **TECHNICAL ASSISTANCE**

**CONDITION:** Within one year, Puerto Rico will include in its program a plan for providing technical assistance to local governments and the public for implementing additional management measures.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** In the Coastal Nonpoint Pollution Control Update (October 8, 1999), Puerto Rico has identified numerous technical assistance activities focusing on all the source categories. These include developing written materials; providing direct outreach to farmers, pesticide applicators, consultants, engineers, and others; identifying economic incentives; and organizing workshops for builders. Many of the activities will be focused locally and regionally in priority watersheds identified through the Unified Watershed Assessment process. These activities will

enable Puerto Rico to implement the 6217(g) measures as well as build the knowledge base necessary to identify and implement any additional measures.

**ADDITIONAL MANAGEMENT MEASURES and CRITICAL COASTAL AREAS**

**CONDITION:** Within one year, Puerto Rico will provide for the identification of additional management measures and the continuing revision of management measures applicable to critical coastal areas and cases where (g) measures are fully implemented but water quality threats or impairments persist.

**CONDITION:** Within one year, Puerto Rico will identify and include a process for the continuing identification of critical coastal areas adjacent to threatened or impaired waters.

**DECISION:** Puerto Rico has satisfied these conditions.

**RATIONALE:** For the purposes of the Coastal Nonpoint Program, Puerto Rico identified the areas nominated for designation as Natural Reserves (NRs) and the areas designated as Special Planning Areas (SPAs), under the Puerto Rico Coastal Zone Management Program (PRCZMP), as the Critical Coastal Areas of the Puerto Rico Coastal Nonpoint Pollution Control Plan. The designation and management procedures for both these areas are identified as the applicable Additional Management Measures.

Special Planning Areas: In 1978, the Planning Board (PB) adopted the concept of SPAs as described in the Puerto Rico Coastal Zone Management Program. The program document identified eight SPAs on the basis of the critical natural resources which they encompassed. Three management plans have been completed and approved by the Planning Board, one more has been submitted for review, and four are under preparation.

The SPA concept was intended to lead to the establishment of guidelines for the protection of natural systems through a variety of measures, including interagency agreements, land use planning and zoning, density limits, effluent standards, and other measures to promote resource protection within a development context. Implementation of this concept requires intensive negotiation between public and private interests and formalized (legally binding) agreements between state and federal agencies with respect to long term management strategies. Plans for SPAs do not involve land use, as such, but relate to interagency agreements concerning the kinds of uses and activities that will be accepted and authorized when and if applications are presented, as well as consensus about density and distribution of activities, so as to protect and conserve the specific resources (including NRs) that are situated within the SPA. Such agreements provide assurance that the basic integrity of the resources of an SPA will be preserved, even in the face of multiple regulatory jurisdictions.

Technical information gathering, analysis and traditional planning activities are based on the requirement for mediating conflicts and resolving policy issues among key federal and Commonwealth agencies. This effort is conducted through the Special Planning Areas

Interagency Committee (SPA-IC) and led by DNER, who acts as both coordinator and facilitator of the Committee. Because of the policy implications, the complexity of issues and the number of stakeholders involved, six core commonwealth and federal agencies were appointed to the Committee.

Natural Reserves: The principal approach used in Puerto Rico to protect ecologically important coastal resources has been through the establishment of NRs, defined as, "those areas that by their physical, ecological, geographic characteristics and the social value of the natural resources existing within them, merit conservation, preservation or restoration to their natural condition. Formal designation of an NR nominated site currently entails the following steps: 1) Preparation of a Technical Supplement (TS); 2) Preparation of a Management Plan (MP); 3) Preparation of a Designation Document (DD); and 4) Designation by Planning Board Resolution. There are currently 34 sites nominated for designation as NRs.

### **MONITORING**

**CONDITION:** Within one year, Puerto Rico will develop a plan that enables the Commonwealth to assess over time the extent to which implementation of management measures is reducing pollution loads and improving water quality.

**DECISION:** Puerto Rico has satisfied this condition.

**RATIONALE:** The Update includes a comprehensive list of water quality monitoring stations throughout the Commonwealth. Puerto Rico's monitoring network is composed of coastal monitoring stations, special monitoring stations along San Juan beaches and Condado Lagoon, river and estuarine monitoring stations, lakes monitoring stations, and surface monitoring stations under the nonpoint source management program. Many of these stations monitor for bacteriological analyses, temperature, physical-chemical parameters (including salinity, color, turbidity, dissolved oxygen, nitrogen, ammonia, and pH), oil and grease analyses, and/or heavy metal analyses.

In its 5-year plans and 15-year program implementation strategy, Puerto Rico has also identified several activities and check points to monitor implementation of the 6217(g) measures. The Committee has established measurable goals for management measure implementation within Unified Watershed Assessment-identified priority watersheds in the first 5-year action plan. The Committee will track progress on a regular basis through monthly meetings of the participating agencies and by using the Unified Geographic Information System. The interagency Committee structure, established by the Governor's Executive Order, will provide an effective mechanism to continually monitor implementation of the 6217(g) measures.