

**PENNSYLVANIA 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 Pennsylvania pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). The Findings for Pennsylvania's coastal nonpoint program were issued on October 3, 1997. Since that time, Pennsylvania has undertaken a number of actions to address conditions of approval on its coastal nonpoint program. Based on those actions and on materials Pennsylvania 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 Pennsylvania has satisfied all conditions of approval.

This document is organized in the same fashion as the Findings for Pennsylvania'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 Pennsylvania has satisfied all conditions placed on approval of the Pennsylvania 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, Pennsylvania'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 Pennsylvania coastal nonpoint program does not relieve the Commonwealth of any requirements under the Endangered Species Act.

## **DELAWARE RIVER MANAGEMENT AREA**

**CONDITION:** Pennsylvania's proposed 6217 management area for the Delaware River excludes existing land and water uses that reasonably can be expected to have a significant impact on the coastal waters of the Commonwealth. The Pennsylvania Department of Environmental Protection (DEP), EPA, NOAA, and other appropriate State, local, and federal agencies will participate in a cooperative process to review relevant information and to determine an appropriate 6217 management area boundary consistent with established national guidance for the 6217 program.

**DECISION:** Pennsylvania has satisfied this condition.

**RATIONALE:** Pennsylvania has agreed to adopt the NOAA-recommended boundary for its 6217 Delaware River Management Area.

## **AGRICULTURE**

**CONDITION:** For nutrient, pesticide, and grazing management, the Commonwealth has identified back-up enforceable policies and mechanisms but has not yet demonstrated the ability of these authorities to ensure implementation throughout the 6217 management area. Within two years, Pennsylvania will develop a strategy (in accordance with Section XIV, page 16, of the original program Findings dated October 3, 1997) to implement the nutrient, pesticide and grazing management measures throughout the 6217 management area.

**DECISION:** Pennsylvania has satisfied this condition.

**RATIONALE:** Under the Final Administrative Changes published on October 16, 1998, NOAA and EPA agreed to approve program elements for which states had proposed voluntary or incentive-based programs, backed by existing State enforcement authorities, if the State provided three items: a legal opinion from the State that the authority can be used to prevent nonpoint pollution and require implementation of management measures; a description of the voluntary or incentive based programs; and a description of the mechanism or process linking the implementing agency with the enforcement agency and a commitment to use the enforcement authority where necessary. Pennsylvania has provided these three components, and therefore has satisfied this condition.

Pennsylvania submitted a legal opinion from the Chief Counsel for the Pennsylvania Department of Environmental Protection certifying that the Pennsylvania Clean Streams Law provides broad regulatory and enforcement authority to prevent nonpoint pollution and require implementation of the nutrients, pesticides, and grazing management measures (see letters from Michael D. Bedrin, Chief Counsel, DEP, dated February 15 and October 24, 2000). The Clean Streams Law definition of pollution is very broad and provides "Pollution shall be construed to mean contamination of any waters of the Commonwealth such as will create or is likely to create a

nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life, including but not limited to such contamination by alteration of the physical, chemical or biologic properties of such waters, or change in temperature, taste, color or odor thereof, or the discharge of any liquid, gaseous, radioactive, solid or other substances into such waters. The Department shall determine when a discharge constitutes pollution, as herein defined, and shall establish standards whereby and wherefrom it can be ascertained and determined whether any such discharge does or does not constitute pollution as herein defined.” 35 P.S. Section 691.1.

The Clean Streams Law requirements are applicable to any person and prohibit the discharge of sewage or industrial waste, either directly or indirectly, without a permit or regulation authorizing the discharge into waters of the Commonwealth. The term “sewage” includes “any substance that contains any of the waste products or excrementitious or other discharges from the bodies of human beings or animals.” 35 P.S. Section 691.1.

In addition to comprehensive regulatory authority, the Pennsylvania Clean Streams Law contains both civil and criminal enforcement tools. The Pennsylvania DEP has authority to abate nuisances or restrain any violation of the Act by filing a proceeding in the Pennsylvania Commonwealth Court or the Court of Common Pleas where the activity has taken place. In addition, any person may commence a citizen’s suit to compel compliance with the Act against either the person in violation or the DEP. Where a person presents information that gives the DEP reason to believe there is a violation of the Act, the DEP is required to conduct an inspection of the operation.

In addition to the descriptions in the original coastal nonpoint program submittal, Pennsylvania provided supplemental information to describe voluntary and incentive-based programs, including methods for tracking those programs, that the Commonwealth will use to encourage implementation of the management measures for agriculture. In particular, Pennsylvania included a strategy for addressing the impacts of animal feeding operations on water quality. This strategy reinforces the development of nutrient management plans to address animal waste from agricultural operations.

The linkage between voluntary and incentive-based programs with the enforceable mechanisms of the Clean Streams Law occurs, primarily, through implementation of specific program authorizations and through the targeting of Pennsylvania’s Growing Greener Grant program and other nonpoint source funding programs to nonpoint source issues identified in the Commonwealth’s Section 319 program. For example, in the area of agricultural management measures for nutrients, in addition to the requirements contained at 25 Pa. Code §§ 91.35, 91.36 and Chapter 102 related to manure storage, manure application and erosion and sediment pollution control from agricultural operations, the DEP provides funding for construction of manure storage, installation of best management practices and stream bank fencing.

More generically, this linkage occurs in three fundamental ways. The first is direct funding to implement the required regulatory measures. The second is funding for programs that encourage management measure implementation. The third linkage includes regional counsels with enforcement capabilities, complaint resolution processes, and institutional and volunteer monitoring programs and watershed groups that are linked to DEP's regional offices. In supplemental material, Pennsylvania included examples of enforcement actions brought by their regulatory and regional counsels under the Clean Streams Law.

### **URBAN -- NEW DEVELOPMENT**

**CONDITION:** Pennsylvania's program does not include management measures in conformity with the 6217(g) guidance, but does include enforceable policies and mechanisms to ensure implementation. Within three years, Pennsylvania will include in its program management measures for new development in conformity with the 6217(g) guidance.

**DECISION:** Pennsylvania has satisfied this condition.

**RATIONALE:** Pennsylvania's Storm Water Management Act (32 P.S. §§680.1 et seq) requires measures to ensure that the maximum rate of stormwater runoff is no greater after development than prior to development for activities that may affect stormwater runoff characteristics. To ensure that Pennsylvania's guidelines adequately reduce sediment in runoff, NOAA and EPA requested Pennsylvania to provide information on the equivalents of their water quantity standards to sediment reduction. On February 16, 2000, Pennsylvania submitted additional information to address this condition. A report prepared in conjunction with the Chesapeake Bay Program outlines the efficiency frequencies that can be expected from the recommended actions outlined in the Pennsylvania Handbook of Best Management Practices for Developing Areas. These efficiency rates demonstrate how the Commonwealth can expect to meet the goal for removing suspended solids as they implement best management practices.

The developing areas handbook is available through the Pennsylvania Association of Conservation Districts (PACD) and is intended for use by local authorities, planners, contractors and others involved with planning, designing, reviewing, approving and building development projects. Copies of the handbook have been supplied to all municipalities in both coastal management areas. DEP has funded PACD to conduct ongoing workshops based on the handbook.

### **URBAN – ROADS, HIGHWAYS, AND BRIDGES**

**CONDITION:** Pennsylvania's program includes management measures for roads, highways, and bridges in conformity with the 6217(g) guidance except for the runoff systems management measure. Within two years, Pennsylvania will include management measures for runoff systems in conformity with the 6217(g) guidance.

**DECISION:** Pennsylvania has satisfied this condition.

**RATIONALE:** In addition to Pennsylvania's broad regulatory authority to prevent nonpoint pollution, on February 16, 2000, Pennsylvania submitted additional information on new and ongoing Department of Transportation (PennDOT) programs to address this condition. NOAA and EPA feel that Pennsylvania has adequate programs and practices to meet the management measures for runoff systems.

PennDOT has an active highway and bridge cleanup program to reduce the NPS load from winter accumulations of road salt and other deicing materials. Bridge scuppers are covered and brooms, scrapers and wet brooms are used as appropriate to collect potential pollutants. Ongoing research on deicing is directed toward reducing the environmental impacts of the materials used. Municipal street sweeping programs are effective in reducing urban NPS loads, particularly as techniques and technologies improve.

PennDOT designs new and reconstruction projects in conformance with established local stormwater management plans and adheres to national highway design standards. Road crews are used during storm events to visually inspect roadways for water-related problems. Rather than just having PennDOT police itself, Pennsylvania uses its coastal zone management, water quality monitoring, and stormwater management networks to detect nonpoint source problems related to runoff from existing roadways and bridges and coordinates with the PennDOT engineering and maintenance districts as appropriate in targeting remedial projects.

Water quality monitoring efforts and watershed management plans which target problem areas give independent assessments of PennDOT's efforts to update their management of stormwater through ongoing maintenance activities and bridge and highway improvement projects. DEP has numerous programs and activities in place that form an effective system of detection and response. As an aspect of Growing Greener, DEP is working on providing additional watershed specialists or conservationists to county conservation districts. An important function of these individuals will be to identify and work to correct NPS problems in their respective locations through partnership efforts. NOAA and EPA encourage Pennsylvania to support these additional field personnel.

PennDOT is developing a comprehensive, agency-wide erosion and sedimentation control program, to establish self-sustaining policies and procedures that are ISO 14001 compliant. PennDOT is using its Erosion and Sedimentation Coordinators in each of its districts to work with a diverse group of stakeholders in developing a program based on process control and management – to prevent rather than react to problems. This program is targeted for completion in the Fall 2001.

## **MARINAS AND RECREATIONAL BOATING**

**CONDITION:** Within three years, Pennsylvania will include management measures for storm water runoff, petroleum control, and boat cleaning in conformity with the 6217(g) guidance. Within two years, Pennsylvania will develop a strategy (in accordance with Section XIV, page 16 of the original program Findings dated October 3, 1997) to implement the storm water runoff management measure throughout the 6217 management area.

**DECISION:** Pennsylvania has satisfied this condition.

**RATIONALE:** On February 16, 2000, Pennsylvania submitted additional information to address this condition. Pennsylvania's Best Management Practices Manual for Marinas includes practices to address the management measures for storm water runoff, petroleum control, and boat cleaning. The Marina Manual has been distributed to marinas and all other interested organizations as part of an education and outreach program and is available in both printed and electronic versions. Pennsylvania will make the handbook available through Pennsylvania's DEP web site, which has experienced exponential increases in use over the past few years. Efforts will be made to have it available electronically through the popular home page of the Pennsylvania Fish and Boat Commission.

Permit and regulatory personnel in both the Lake Erie and Delaware management areas make use of the handbook in their dealings with marina owners and operators for issuance and renewals of permits and submerged lands licenses. Nonpoint source pollution prevention design considerations and management measures are made conditions of permits and licenses, reinforced by Pennsylvania's coastal zone consistency program.

In regard to the condition to develop a strategy to implement the storm water runoff management measure, the legal opinion addresses the adequacy of Pennsylvania statutes and regulations to provide authority for control of polluted storm water runoff from marinas and ensure implementation of management measures. Pennsylvania has also provided the required description of the voluntary or incentive based programs and a description of the mechanism or process linking the implementing agency with the enforcement agency and a commitment to use the enforcement authority where necessary.

As stated above, this linkage occurs in three fundamental ways. The first is direct funding to implement the required regulatory measures. The second is funding for programs that encourage management measure implementation. The third linkage includes regional counsels with enforcement capabilities, complaint resolution processes, and institutional and volunteer monitoring programs and watershed groups that are linked to DEP's regional offices. In supplemental material provided by Pennsylvania, the Commonwealth included examples of enforcement actions brought by their regulatory and regional counsels under the Clean Streams Law.

Pennsylvania has performed an analysis of marinas to determine which marinas have storm water runoff control practices, especially related to hull maintenance areas. Pennsylvania is using this

information to determine the scope of the problem and provide assistance to those marinas where storm water runoff is a problem. As an example of implementation, the Erie-Western Pennsylvania Port Authority has built a demonstration sidewalk filtration system for control of maintenance area storm water runoff into Presque Isle Bay. Effectiveness is being monitored over time by Gannon University. In Harborcreek Township on Lake Erie, an oil-grit separator was installed in a boat launch ramp parking lot to eliminate the runoff flowing directly into the lake. This practice is also being monitored for its effectiveness and potential applications to other shoreside facilities.

Besides the required schedules for inspections included in permits for marinas, DEP has clearly defined problem-reporting procedures that are readily accessible to the public, well-advertised and easy to use. Procedures are in place to initiate prompt departmental action and initiate progress reporting.

The waterways conservation officers of the Pennsylvania Fish & Boat Commission patrol the marinas and waterways of Pennsylvania's coastal waters and have law enforcement powers. They work with DEP's regional offices for enforcement actions. DEP also has a strong emergency response capability in both coastal management areas.

### **HYDROMODIFICATION**

**CONDITION:** Within three years, Pennsylvania will develop a process for improving surface water quality and instream and riparian habitat through the operation and maintenance of existing modified channels and identify and develop strategies to solve existing nonpoint source problems caused by streambank or shoreline erosion.

**DECISION:** Pennsylvania has satisfied this condition.

**RATIONALE:** Over the past several years, Pennsylvania has been working in several areas to identify and review modified channels, to address identified problems through local action or agency programs, and to develop action plans that ensure channel modifications do not contribute to nonpoint source pollution in the future. NOAA and EPA find that these activities constitute a plan to systematically review (over time) modified channels of all sizes, to identify opportunities for improvement, and to make corrective actions in identified areas through implementation projects. These activities are being institutionalized through: 1) the Commonwealth's 21<sup>st</sup> Century Environment planning recommendations; 2) Pennsylvania's Nonpoint Source Management Program Update (1999); 3) DEP's Bureau of Waterways Engineering activities; 4) PennDOT manuals relating to design and review of bridges and culverts; 5) DEP's "unassessed waters" program; 6) collaborative efforts to document stream conditions and develop fluvial geomorphology tools needed for natural stream restoration; and 7) dam removal and stream restoration projects funded through various grant programs.

Pennsylvania's Action Plan to address nonpoint source pollution from hydromodification is described in the Nonpoint Source Management plan update (1999) and includes watershed restoration plans that consider the stream's fluvial geomorphology. The Nonpoint Source Management plan includes training to technical service providers on the federal *Stream Corridor Restoration Handbook*. Also, the plan includes developing a user-friendly stream bank restoration guide for local groups. (The developing areas handbook was used as the basis for a state-wide workshop at Villanova University in 1999 for PennDOT hydraulics and hydrology design personnel.)

Pennsylvania's Nonpoint Source Management plan lists as a long term goal with short term objectives: "Conduct restoration activities on all... nonpoint source impacted streams, for the purpose of attaining designated uses, by the year 2015; and conduct necessary restoration activities on all abandoned mine and hydrologic/habitat modified impacted streams, for the purpose of attaining designated uses, by 2025."

Pennsylvania has shoreline and streambank erosion programs such as the Bluff Recession and Setback Act (BRSA), the Stream ReLeaf program, and the Schuylkill Riverkeeper program that address the streambank and shoreline erosion management measure. The BRSA requires Erie County municipalities to regulate development along shorelines with bank heights greater than five feet, in order to preserve and restore natural features, and to protect shorelines against unwise land use practices. Pennsylvania requires permits for projects involving stream encroachment, and the Commonwealth gives preference to vegetative controls for shoreline and streambank erosion.

Staff of the Bureau of Waterways Engineering encourage training and participation in construction of stream restoration using the principles of fluvial geomorphology. Over a third of the Bureau's technical staff will have completed the necessary stream classification training required by this methodology. The DEP has partnered with the U.S. Fish and Wildlife Service to complete a stream restoration project and has agreed to participate directly in further phases, and in additional projects. Additionally, the DEP has earmarked a portion of annual stream improvements funding to undertake stream restoration for environmental and habitat benefits, and participates with local sponsors who undertake such work as local projects.

The Bureau continues to include the study of habitat features in future projects as they are initiated and progress from planning and feasibility through design, construction, and maintenance. In coordination with state and federal fish and wildlife agencies, project reviews include how habitat features such as low flow channels and low over-bank flood plains (also called elevated floodplains) can be incorporated into projects.

PennDOT is working with the Pennsylvania Fish and Boat Commission to update its design guidance for culverts and bridges. USGS is currently participating in this collaborative effort by monitoring for effects of culverts and bridges on water quality.

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

**CONDITION:** Within three years, Pennsylvania will include in its program management measures in conformity with the 6217(g) guidance to address activities in wetlands and riparian areas that are not currently reviewed under existing permit authorities.

**DECISION:** Pennsylvania has satisfied this condition.

**RATIONALE:** The condition is aimed at protecting wetlands and riparian areas from indirect impacts associated with changes in hydrology or increased sediment/pollutant loading resulting from runoff. Pennsylvania has addressed this condition by virtue of the fact that the Commonwealth has in place management measures and enforceable policies and mechanisms for erosion and sediment control, stormwater management (new and existing development) and watershed management. These measures should provide adequate controls to manage and mitigate potentially adverse hydrologic and sediment loading impacts to wetlands and riparian areas that perform beneficial water quality functions and thus address the measure.

As part of the Dam Safety and Waterways Management Programs (which includes the Wetlands Program) Pennsylvania requires a permit for dredging or filling activities in wetlands. Permit applications for new projects are reviewed for impacts on water quality, streamflow regimen, habitat, and instream and downstream uses. Management measures promoting restoration of wetland and riparian areas are implemented through the Commonwealth's Wetlands Program, which requires restoration for mitigation of wetlands loss or degradation. Management measures promoting vegetated treatment systems are implemented through the Commonwealth's agricultural cost-share program, and the DEP, which has undertaken demonstration projects of vegetated treatment systems, has prepared a 5-volume set of design manuals for vegetated treatment systems for treatment of urban, agricultural, and mining wastes. Pennsylvania's Nonpoint Source Management plan (319 plan) contains steps to specifically protect the nonpoint source abatement function of wetlands.

### **MONITORING**

**CONDITION:** Within one year, Pennsylvania will finalize its 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:** Pennsylvania has satisfied this condition.

**RATIONALE:** Pennsylvania's 319 Nonpoint Source Management Plan has statewide application and outlines the Commonwealth's plan for monitoring environmental measures and acquiring indicators of progress and success in both coastal and non-coastal areas. This plan will allow DEP to assess over time the extent to which management measures are being implemented and their effectiveness in controlling and preventing nonpoint source pollution. The short-term

objectives and long-term goals are to be met within the five-year plan and 15-year strategy parameters in effect for coastal NPS management.

Professional technical expertise and volunteer monitoring characterize the spectrum of an integrated system of federal, regional, state, watershed, county and local water quality monitoring activity in Pennsylvania, designed to pinpoint problems requiring immediate action, illuminate long-term trends, and provide verification of the effectiveness of the management measures applied.

The Commonwealth has been able to develop a diverse mix of public and non-governmental activities to effectively monitor and address coastal nonpoint source pollution issues. The results of monitoring, and the GIS presentations of impaired areas, are readily available to central office water quality and coastal management programs, regional water quality and coastal zone staff, regional watershed coordinators, and public interest groups. Remediation projects for detected problems could be initiated by any of these, but the effective information to implementation loop is expected to occur through regional personnel, particularly the watershed coordinators. Supplementing the normal violation detection and complaint resolution processes, watershed coordinators will assist in resolving violations through normal internal enforcement processes, as well as work with local groups to address a problem in a non-regulatory way.

Pennsylvania's plan for achieving comprehensive assessment of its surface waters includes a program to evaluate all unassessed free-flowing streams using a field-level biological assessment by 2003. After 2003, all free flowing streams will be assessed on a five year cycle. The project tracking and electronic reporting systems under development by DEP allow DEP to quantify the results of habitat improvements and riparian restoration aimed at controlling NPS pollution. GIS maps and digital databases are both used for water quality reporting purposes.

The extensive activities of USGS and the Delaware River Basin Commission in tracking both the quantity and quality of surface and groundwater resources, and establishment of a monitoring implementation team for the Delaware Estuary are helping Pennsylvania develop baseline data. These supplement information developed by DEP programs measuring the success of Pennsylvania's Coastal NPS Management of its Delaware Estuary watershed.

In both coastal NPS management areas, watershed management strategies and implementation of stormwater management plans indicate problem sites and program successes. Training and quality controls for volunteer monitoring groups are leading to acquisition of meaningful data for tracking program successes.

In December 1999, Pennsylvania DEP opened a new web page to allow anyone to see the results of work inspections, enforcement actions, compliance visits, pollution prevention site visits and the status of permit applications for all core NPS programs. In the near future, environmental information from compliance reports and DEP's GIS will be added, along with other

environmental indicators. This site is expected to build a three dimensional picture of the health of Pennsylvania's watersheds and assist in monitoring and evaluation over time.