

## **NOAA/EPA DECISIONS ON CONDITIONS FOR THE NEW JERSEY COASTAL NONPOINT PROGRAM**

### **FOREWORD**

This document contains the basis for the decision by NOAA and EPA (Federal Agencies) to fully approve New Jersey's Coastal Nonpoint Pollution Control Program (coastal nonpoint program or CNP). The document discusses how the State has met each of the conditions of approval placed on the coastal nonpoint program submitted by New Jersey pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) and otherwise conforms to the guidance document published under Section 6217(g).

The Federal Agencies' findings for New Jersey's coastal nonpoint program were issued on November 18, 1997. Since that time, New Jersey has undertaken a number of actions to address conditions of approval on its coastal nonpoint program. Based on those actions and on materials the State has provided to document how the conditions have been met, NOAA and EPA find that New Jersey has satisfied all conditions of approval.

This document is organized in the same fashion as the findings for New Jersey's coastal nonpoint program. Where the findings included a condition, this document repeats the condition, and discusses how the condition has been satisfied. 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); and *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).

### **AGRICULTURE**

**CONDITION:** Within one year, New Jersey will develop a strategy (in accordance with section XIV, p. 14) to implement the agricultural management measures throughout the 6217 management area.

**DECISION:** New Jersey has met this condition.

**RATIONALE:** In reviewing the State's original Coastal Nonpoint Pollution Control Program (CNP) submittal, the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA) determined that New Jersey implements the agriculture management measures through farm conservation plans (FCPs) developed under the New Jersey Soil Conservation Act (NJSCA). However, NOAA and EPA did not find that the State had sufficiently demonstrated the ability of the New Jersey Water Pollution Control Act (NJWPCA) to ensure implementation. Subsequently, the New Jersey Department of Environmental

Protection (NJDEP), as the State agency responsible for implementing and enforcing the provisions of the NJWPCA, entered into a Memorandum of Agreement (MOA) with the New Jersey Department of Agriculture (NJDA) and the State Soil Conservation Committee (SSCC). These two agencies are responsible for implementing the NJSCA, which authorizes (1) a cooperative voluntary program of technical and financial assistance to farmers to establish FCPs, and (2) the implementation of conservation practices within the FCPs that meet the Section 6217(g) measures.

Under the MOA, the NJDEP, NJDA and the SSCC have agreed to the goal of developing and implementing FCPs, either on their own or through enrollment in Federal Farm Bill Programs on all farms by 2010, where such systems are needed to comply with the requirements of Section 6217. The MOA also states that in targeted watersheds, which were chosen based on the predominance of agricultural land use, their water bodies' impairment status on the 303(d) List and the existence of a TMDL to address the impairments, the NJDEP would provide funding to the NJDA and the SSCC for the purpose of providing targeted outreach and technical assistance to develop and implement FCPs which would result in the greatest environmental benefit to the extent feasible.

The MOA between NJDEP, NJDA, and SSCC requires that nonpoint source control projects, which are funded through the Corporate Business Tax and Clean Water Act Section 319(h) funds, must provide tracking and reporting data on a HUC 14 basis to the NJDEP. For the practices implemented in the targeted watersheds of this MOA, NJDA will provide basic best management practices (BMP) installation information, as outlined in the "319(h) Load Reduction Survey" necessary for NJDEP to perform STEP-L load reduction calculations for nitrogen, phosphorus, total suspended solids, which will be reported to EPA. Examples of this information include: Location (County, Municipality, HUC14, WMA); Hydrologic Soil Group; Type of BMP; Extent of project (Length of streambank restoration, length of buffer installed, etc.); Definition of specific drainage area draining to BMP (Number of acres that drain to the BMP); Land Use Type described in acres and percent of HUC 14 of specific drainage area (NJDEP Modified Anderson System 2002 Level 1). This information is required to be submitted to the NJDEP, including a corresponding GIS shape file, on an annual basis.

The NJDA has adopted the Animal Waste Management rules (N.J.A.C. 2:91) in 2009, which "set forth the requirements for the development of Animal Waste Management Plans (AWMPs) or Comprehensive Nutrient Management Plans (CNMPs) for farms which generate, handle or receive animal waste" (N.J.A.C. 2:91-1.1). The rules contain criteria and standards for animal waste management on all agricultural animal operations not requiring a New Jersey Pollutant Discharge Elimination System (NJPDES) permit, including animal feeding operations (AFOs).

Additionally, NJDEP, NJDA and the United States Department of Agriculture's Farm Service Agency (FSA) jointly developed a Conservation Reserve Enhancement Program proposal for New Jersey (NJ CREP), which was accepted and signed by USDA in 2004 and reauthorized in the Federal Farm Bill of 2008. The \$100 million NJ CREP proposal seeks to enroll 30,000 acres of agricultural lands into the program.

The New Jersey CREP is designed to help farmers reduce nonpoint source pollution caused by agricultural runoff in order to improve water quality in New Jersey. Under NJ CREP, farmers receive financial incentives from FSA and NJDA to voluntarily remove marginal pastureland or cropland from agricultural production and convert the land to native grasses, trees and other vegetation. The vegetation can then serve as a buffer to filter or contain agricultural runoff and prevent polluted stormwater runoff generated by farms from reaching neighboring water bodies.

The program provides a 10-year enrollment period and targets the installation of riparian buffers, filter strips, contour buffer strips and grass waterways. Farmers will be able to enroll their land into NJ CREP by installing conservation practices under 10-15 year rental agreements and/or permanent easement contracts.

Finally, New Jersey provided a legal opinion that clearly states that the NJDEP has the regulatory authority to require implementation of the Section 6217 Coastal Nonpoint Program management measures. The legal opinion further states that NJDEP is authorized to prevent, control, or abate water pollution from point and nonpoint sources pursuant to the NJWPCA, including the authority to take enforcement actions against agricultural operations that have violated water quality standards under the NJWPCA (N.J.S.A. 58:10a-10b and d). In addition, the State provided documentation of two agriculture-related water quality violation cases to demonstrate its use of the State's water quality law as a back-up authority.

Through the combination of the State's adoption of the MOA, the legal opinion provided by the State of New Jersey's Deputy Attorney General, and NJDEP clarifying its use of the State's water quality law to enforce against water quality problems, the State has met the Agriculture category condition.

## **URBAN**

### **NEW DEVELOPMENT AND SITE DEVELOPMENT**

**CONDITION:** Within three years, New Jersey will include in its program enforceable policies and mechanisms to ensure implementation of the new development and site development management measures throughout the 6217 management area. Within three years, New Jersey will also incorporate the two-year, 24-hour design storm into its program.

**DECISION:** New Jersey has met these conditions.

**RATIONALE:** In the years since New Jersey first submitted its CNP for approval, the State has developed and established enforceable policies and mechanisms to ensure implementation of the new development and site development management measures throughout the 6217 management area. Two sets of new stormwater rules, the Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program Rules (N.J.A.C. 7:14A) and the Stormwater

Management Rules (N.J.A.C. 7:8), were signed by the Commissioner of the NJDEP on January 5, 2004. Together, the two sets of rules establish a comprehensive framework for addressing water quality impacts associated with existing and future stormwater discharges from new development and site development.

According to Section 6217(g) guidance, once a source category is regulated under the National Pollutant Discharge Elimination System (NPDES) program, that category no longer needs to be addressed under the state's coastal nonpoint source program. Pursuant to State NPDES permit requirements, all NPDES Stormwater Phase I or Phase II designated municipalities must control stormwater runoff from new development consistent with the Section 6217(g) guidance management measures. The majority of New Jersey's municipalities are designated under the NPDES Phase II program. Those municipalities in New Jersey that are not federally designated as Phase I or Phase II have been designated under the Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program Rules (N.J.A.C. 7:14A) as Tier B municipalities. Tier B municipalities are required to apply for a stormwater general permit, which includes Statewide Basic Requirements described below.

The Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program Rules (N.J.A.C. 7:14A) are intended to address and reduce pollution associated with stormwater runoff from existing and new development. The rules establish a Municipal Stormwater Regulation Program that regulates, in some form, all 566 municipalities within the State for existing stormwater discharges. Municipalities within the State are assigned to either Tier A or Tier B. The 467 Tier A municipalities are generally located within the more densely populated regions of the State, including the entire Jersey shore. The 99 Tier B municipalities are generally more rural and in non-coastal regions. The permits for each municipality address stormwater quality issues related to new and existing development and redevelopment by requiring municipal stormwater programs and implementing specific Statewide Basic Requirements. The Tier B Permit concentrates on new development and redevelopment projects, and public education. The Tier A Permit goes well beyond the Tier B permit requirements, meeting or exceeding requirements under the Federal Clean Water Act.

The Stormwater Management Rules (N.J.A.C. 7:8), which apply to all municipalities statewide, set forth the required components of regional and municipal stormwater management plans, and establish the stormwater management design and performance standards for new (proposed) development. The rules emphasize the use of non-structural stormwater management techniques, including minimizing disturbance, impervious surfaces and the use of stormwater pipes, as well as preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater runoff quantity and quality control, and a buffer adjacent to Category One waters and their immediate tributaries. All major development, which is defined as a project or activity that ultimately disturbs one or more acre of land or increases impervious surface by one-quarter acre or more, is required by law to comply with the Stormwater Management Rules (N.J.A.C. 7:8).

Finally, the Stormwater Management Rule (N.J.A.C. 7:8) requires minimization, to the extent possible, of any increase in stormwater runoff from any new development throughout the State, as well as prevention, to the greatest extent feasible, of an increase in nonpoint pollution. The Rule also establishes design and performance standards for stormwater management measures for major development that minimize the adverse impact of stormwater runoff on water quality and water quantity and loss of groundwater recharge in receiving water bodies. To control stormwater volume, the design engineer is required to demonstrate through hydrologic and hydraulic analysis one of the following: 1) that for stormwater leaving the site, post-construction runoff hydrographs for the 2, 10, and 100 year-storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events; 2) that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the 2, 10, and 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site; or 3) that the post-construction peak rates of the 2, 10, and 100-year storm events are reduced to 50%, 70%, and 80% of the pre-development peak rates, respectively. New Jersey's Rules on Coastal Zone Management (N.J.A.C. 7:7E) also require compliance with the Stormwater Rules for coastal development.

## **WATERSHED PROTECTION AND EXISTING DEVELOPMENT**

**CONDITION:** Within two years, New Jersey will include in its program a means to identify priority watershed pollutant reduction opportunities and a schedule for implementing appropriate controls in conformity with the existing development management measures.

**DECISION:** New Jersey has met this condition.

**RATIONALE:** In the years since New Jersey first submitted its CNP for approval, it has clearly developed and established both a process to identify priority watershed pollutant reduction opportunities, and a schedule for implementing controls in conformity with the existing development management measures.

In December 2000, NJDEP initiated a planning and partnership process in each of New Jersey's 20 watershed management areas (WMAs). The function of each of the 20 New Jersey watershed partnerships is broad and includes project coordination, resource sharing, identification of local concerns, developing goals, establishing priorities, developing strategies, participating in management plan development, ongoing monitoring, and implementation of the plan. Through the watershed planning process, water quality impairments are assessed and restoration actions identified to address the impairments.

In 2004, New Jersey adopted new stormwater rules that called for developing municipal stormwater management plans (N.J.A.C 7:8-2 and 8-4). Among the goals of the municipal stormwater management plans is to minimize pollutants from new and existing development. According to the State's 2008 Nonpoint Pollution Report, ninety-five percent of the municipalities now have stormwater management plans in place.

New Jersey further supports implementation of watershed restoration activities and other efforts to improve existing nonpoint source pollution problems through its Section 319(h) grants and other funding programs such as TEA 21 (now SAFETEA-LU) and New Jersey Corporate Business Tax (CBT) funds. For example, between state fiscal years 2002-2007, New Jersey funded the development and/or implementation of over 30 watershed management plans through its 319 grants program. The implementation projects associated with these plans include retrofits and renovation of stormwater basins, riparian restoration and installation of a variety of other stormwater best management practices to reduce nutrient and sediment loads from stormwater runoff. As of January 2009, New Jersey had 24 approved watershed protection and restoration plans that are focused on achieving water quality improvements and nonpoint source pollutant load reductions required by TMDLs. The highest priority stormwater management measures identified in these approved plans are currently being implemented using available 319(h) and CBT funds in targeted watersheds.

Based on New Jersey's stormwater management planning and watershed restoration efforts, NOAA and EPA find that New Jersey has met the Watershed Protection and Existing Development management measures. NOAA and EPA encourage the State to continue to move forward with these activities to identify and address existing nonpoint source impairments.

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

**CONDITION:** Within three years, New Jersey will amend its Standards for Individual Subsurface Sewage Disposal Systems to include: (1) a means to reduce nitrogen loadings by 50 percent where nitrogen-limited surface waters may be adversely affected by excessive nitrogen loadings from ground water; and (2) a process for inspection at a frequency adequate to determine whether systems are failing.

**DECISION:** New Jersey has met this condition.

**RATIONALE:** New Jersey has met this condition by adopting new and updated State rules.

#### **Reducing Nitrogen Loadings from New and Existing OSDS**

On July 7, 2008 New Jersey adopted changes to its Water Quality Management Planning Rules N.J.A.C. 7:15 that satisfy this condition to provide a means for reducing nitrogen loadings by 50 percent where nitrogen-limited surface waters may be adversely affected by excessive nitrogen loadings from ground water.

The new rules strengthen measures to protect ground water from pollution by applying a statewide minimum nitrate planning standard of 2 mg/L of nitrates for new onsite systems. More stringent criteria apply in the Highlands Region. Before, the antidegradation standard was 5.2 mg/L, except for the Pinelands region, which was subject to the 2.0 mg/L standard.

To date, New Jersey DEP has approved three innovative/alternative onsite technologies for use in the State and is evaluating others for use, including recirculating sand filters, sequencing batch reactors, fixed activated sludge treatment systems, and other denitrifying systems.

In addition to these other methods for meeting the nitrogen limited waters management measure, New Jersey will apply its TMDL development and implementation process to ensure that nitrogen loads from both existing and new septic systems are reduced as needed to attain State water quality standards for nitrate (to the extent that OSDS are identified as a significant source in nitrogen-impaired waters). In a 2002 Memorandum of Agreement between Region II and the State, New Jersey agreed to establish TMDLs, or other management strategies, for all waterbodies listed as impaired on its 2002 Clean Water Act Section 303(d) list at a pace that is reasonable.

The process of implementing TMDLs will provide a means to manage nitrogen loadings contributed by new and existing OSDS through the State's Water Quality Management Planning process and the NJDEP's permit regulatory authority. TMDLs are required to be adopted as amendments to the Areawide Water Quality Management (WQM) Plan(s) (N.J.A.C. 7:15 - 3.4 (b)(4)).

Per N.J.A.C. 7:15-3.1(a), all projects and activities affecting water quality must be developed and conducted in a manner that does not conflict with the Water Quality Management Planning Rules or adopted WQM plans. Therefore, when nitrate TMDLs are adopted, if onsite disposal systems are identified as a source, management strategies to achieve the identified load reduction would be included in the TMDL implementation plan. The management strategies would need to be implemented by the identified responsible parties, because they become part of the WQM plan. NJDEP would not issue a permit to a project in conflict with the management strategies. Therefore, New Jersey meets this management measure in large part by ensuring that TMDLs for nitrogen-limited waters are implemented by virtue of NJDEP's permitting powers.

### **Inspecting OSDS**

On July 7, 2008, New Jersey adopted changes to its Water Quality Management Planning Rules N.J.A.C. 7:15 that satisfy the condition to develop a process for inspecting OSDS at a frequency adequate to determine whether OSDS are failing. These rules primarily implement the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 *et seq.*, whose purpose is to maintain and restore the integrity of New Jersey's surface and ground waters. Amendments to these rules include requirements that municipalities establish a mandatory maintenance program to ensure the proper functioning of OSDS.

The authority, rationale, and requirements for WQM Plans are described in the summary of the rule proposal published in the May 21, 2007 New Jersey Register. The Areawide WQM Plans are umbrella plans that cover the entire State. These plans include a number of required components such as the Wastewater Management Plans, which serve as the principal means to

update and amend the WQM Plans and which are each adopted into the appropriate Areawide WQM Plan, giving the provisions of the Wastewater Management Plans legal effect.

In general, the State program requires that a county without a wastewater management plan, or with an outdated wastewater management plan, submit a plan or update the existing plan to meet the new wastewater plan requirements. Counties had nine months to update their plans. However, given the complexity of the update, counties applied for and received additional time from NJDEP to complete their plan updates. With the exception of one county whose plan is due in April 2010, all plans or updates are due by the end of 2009. Failure to comply with the new plan requirements results in the withdrawal of all future or proposed wastewater service area designations for any such county, which severely constrains any new growth in the county dependent on sanitary sewers. Since all 21 counties in New Jersey have some areas that are sewerred and anticipate growth, all counties in the State are affected by the consequences of failing to comply with this rule. EPA Region 2 recently awarded New Jersey approximately 1.6 million dollars to assist in the development of WQM Plans.

Specifically, N.J.A.C. 7:15-5.25(e)(3) states: “Demonstrate that areas to be served by individual subsurface sewage disposal systems are subject to a mandatory maintenance program, such as an ordinance, which ensures that all individual subsurface sewage disposal systems are functioning properly. This shall include requirements for periodic pump out and maintenance, as needed.”

Beyond these requirements, EPA and NOAA recognize the following additional elements:

- An additional rule has been proposed by NJDEP to require all active OSDs within the Pinelands to be inspected every three years and pumped when necessary.
- All onsite wastewater systems with a design capacity of greater than 2000 gallons per day must be inspected at the time of property transfer.

## **ROADS, HIGHWAYS, AND BRIDGES**

**CONDITION:** For construction site chemical control and runoff systems, and operation and maintenance for local roads, within three years, New Jersey will include in its program management measures in conformity with the Section 6217(g) guidance and enforceable policies and mechanisms to ensure implementation.

**DECISION:** New Jersey has met this condition.

**RATIONALE:** As stated in a December 2002 Policy Memo, NOAA and EPA have agreed to defer to the NPDES Phase I & II Stormwater Program for the construction site chemical control management measure. According to the Section 6217(g) program guidance, once a source category is regulated under an NPDES permit, the state program no longer needs to address the source category under its coastal nonpoint source pollution control program. In its implementation of the CWA NPDES regulations for stormwater discharges, however, New Jersey’s program assures conformity with the conditions for construction site erosion and



sediment control and construction site chemical control across its 6217 management area (statewide).

For runoff systems and operation and maintenance of local roads, EPA and NOAA provide geographically limited coverage under the Phase I and Phase II NPDES Stormwater Permits. However, NOAA and EPA have found New Jersey's programs to meet both of its remaining Roads, Highways, and Bridges management measures statewide through three separate stormwater permits that all became effective March 2004 and were recently updated in 2009. All highway agencies that operate state, interstate, and county roads, highways, and bridges anywhere within New Jersey are subject to the State's Highway Agency Stormwater Permit (NJ0141887). While all non-municipal roads throughout New Jersey are covered under this permit, the State's extensive municipal road network is covered under two separate permits. All municipal roads are covered under either the Tier A or the Tier B Municipal Stormwater Permit. About 90 percent of municipal road miles belong to Tier A municipalities, which are generally larger in population than Tier B municipalities. In terms of the level of regulation of local roads, highways and bridges, the Tier B permit has the fewest regulatory requirements and the Highway Agency permit has the most, followed closely by the Tier A permit.

All municipalities, counties, and highway agencies across New Jersey must ensure adequate long-term operation and maintenance of BMPs, as this requirement is common to all three NPDES permits. All municipalities and counties must certify that stormwater facilities, including stormwater conveyances, serving roads, highways, and bridges are functioning properly and must include a schedule for repairs in annual reports. Additionally, Tier A municipalities must "develop and implement a stormwater outfall pipe scouring detection, remediation and maintenance program to detect and control localized stream bank scouring in the vicinity of outfall pipes operated by the municipality" and retrofit catch basins when resurfacing roadways to meet specific design standards to reduce solid and floatable debris entering waterways during runoff events. Under the Highway Agency stormwater permit, counties must meet all the Tier A municipality requirements and must also "develop a Roadside Vegetation Management Program that limits the application of herbicides and restricts the methods by which mulch is applied." In addition, N.J.A.C. 7:8-3 requires regional stormwater management plans to identify the most significant existing sources of storm water pollution, including roadways, and develop a strategy and schedule for addressing priority problem areas. Collectively, these requirements fulfill the runoff system element of the roads, highways and bridges management measure.

New Jersey meets the operation and maintenance element of the roads, highway and bridges management measure not only through the requirements described above, but also through additional permit requirements. All municipalities, counties, and highway agencies across New Jersey must label nearly every storm drain inlet in maintenance yards, parking lots and next to sidewalks within five years, as this feature is common to all three stormwater permits cited above. Further, Tier A municipalities and highway agencies (including counties) are required to conduct monthly street sweeping along curbed roads with post speed limits of 35 mph or less throughout commercial areas. Tier A municipalities and county highway agencies must also

have ordinances to manage yard waste and to control pet waste, litter and storm drain dumping. Further, Tier A municipalities must routinely inspect and clean catch basins. Municipalities with 5,000 catch basins or less must annually inspect and clean 1,000 catch basins or as many as the city owns, which ever is less. Municipalities with more than 5,000 catch basins must inspect and clean all catch basins within five years.

## **MARINAS**

**CONDITION:** For boat cleaning, within three years, New Jersey will include in its program management measures in conformity with the Section 6217(g) guidance and enforceable policies and mechanisms to ensure implementation.

**DECISION:** New Jersey has met this condition.

**RATIONALE:** In June 2007, the NJDEP issued a revised Basic Industrial Stormwater General Permit (NJ0088315) that specifically prohibits the unpermitted discharge of equipment and vehicle (including boats) wash water into waters of the State. By June 1, 2009, marinas were required to eliminate any unpermitted discharge of boat wash wastewater, including rinse water with or without detergents, to waters of the State. In order to help marinas comply with the new conditions of the permit, the NJDEP issued a marina-specific edition of the Basic Industrial Stormwater General Permit Guidance Document in June 2007. The Guidebook includes recommended best management practices for boat maintenance and boat bottom washing consistent with the Section 6217(g) measures. In addition to the Guidance Document, the NJDEP has provided the marina industry with information and training on the new permit and how to comply with it on the Clean Marina webpage and at several workshops.

In addition, the State launched a voluntary, incentive-based clean marina certification program in 2005. The program encourages marina owners, yacht clubs, boatyards and boaters to adopt practices that help prevent adverse impacts to water quality, sensitive habitats and living resources in proximity to marinas. These best management practices are consistent with the Section 6217(g) guidance for the boat cleaning measure as well as the other marina measures to prevent or reduce polluted runoff from marina and boating activities. As of September 2008, the State has certified 17 “clean marinas” and 24 additional marinas are working to become clean marinas. To help marinas implement these best management practices, the State has developed a Clean Marina brochure, more extensive clean marina guidebook and clean boating tip sheets, including one specifically on vessel cleaning and maintenance, produces a quarterly clean marina newsletter, and holds annual clean marina workshops.

NJDEP has demonstrated to NOAA and EPA’s satisfaction that the State has met both the management measure and enforceable policy element requirements of this condition. NJDEP is also vigorously promoting smart boat cleaning BMPs through education and outreach.

## **HYDROMODIFICATION**

**CONDITION:** Within three years, New Jersey will: (1) include in its program a process to improve surface water quality and restore instream and riparian habitat through the operation and maintenance of existing modified channels; and (2) include in its program management measures for the effects of existing dams on surface water quality and instream and riparian habitat.

**DECISION:** New Jersey has met this condition.

**RATIONALE:**

Channels

New Jersey has developed a Nonpoint Source and Stormwater Management Program Plan that provides a process to improve surface water quality and restore instream and riparian habitat through the operation and maintenance of existing modified channels. One of the specific goals/objectives of the plan is to maintain and restore vegetative bank cover and buffers adjacent to headwaters and stream corridors. Activities specific to addressing stream corridor protection and hydromodification under the plan include: (1) identifying and implementing priority stream bank restoration projects through the State's Watershed Restoration Action Strategies; (2) providing technical and financial assistance for projects to stabilize eroding streambanks and shorelines; (3) developing stream corridor protection guidelines that protect riparian buffer areas implementable through NJDEP rules (e.g., Watershed, Wetlands, Stream Encroachment), Watershed Restoration and Protection Plans, and local ordinances; and (4) preparing, developing, and implementing Community Forestry Plans, as well as strategies to control and mitigate runoff through retention of forests, tree planting and stream corridor restoration. NJDEP will serve as one of the lead groups on all of these activities, and will be joined by the New Jersey Department of Agriculture, the Nature Resources Conservation Service, and the New Jersey Forest Service.

New Jersey continues to fund priority streambank and habitat restoration projects using Clean Water Act Section 319 funds and other funding sources. For example, New Jersey's 2008 Nonpoint Source Report includes several streambank stabilization projects that were funded recently. Based on New Jersey's activities under the Nonpoint Source and Stormwater Management Program Plan, the Watershed Restoration and Protection Plans (through which the State identifies and addresses priority watershed issues on an as-needed basis), and the State's demonstrated commitment to funding priority channelization operation and maintenance projects where surface water quality and instream and riparian habitat are affected, NOAA and EPA find that New Jersey has met the first element of the hydromodification condition.

Dams

New Jersey meets this condition through a combination of programs outlined below.

First, the State applies an action-oriented approach for remediating source impairment caused by hydromodification projects, including dams. "Action-oriented Nonpoint Source Projects" are

identified through the development of lists of candidate implementation projects with NJDEP's watershed management partners and through development of watershed restoration and protection plans. Steps include: 1) identifying the watershed issues; 2) determining the extent of use impairment; 3) completing a nonpoint source pollution assessment to characterize the relative contribution from various sources and the reductions needed to restore designated uses; 4) identifying control strategies that will contribute to source reductions; 5) identifying funding sources, such as Clean Water Act Section 319(h) grants, National Estuary Programs, the State's Corporate Business Tax, Clean Water State Revolving Loan funds; agricultural funds (CREP, EQIP), etc.; 6) evaluating the effectiveness of strategy implementation; and 7) revising the control strategy, if necessary. New Jersey has applied this approach in its Watershed Management Areas to address the effects of existing dams on surface water quality and instream and riparian habitat. For example, for Lake Renee in Watershed Management Area 18 in Camden County, the State identified a streambank stabilization project to eliminate the associated sediment plume to remediate an area of the channel between a reconstructed dam and the lake.

NJDEP also conducts biological monitoring for the effects of dams using the State's Ambient Biomonitoring Network (AMNET), which was initiated in 1992. AMNET monitoring collects and analyzes stream benthic macroinvertebrate communities as indicative of water quality and habitat suitability. The project is facilitated by the use of Rapid Bioassessment Protocol II methods, devised by EPA, which provide an expedient tool for site ranking, screening and trend monitoring. The data obtained from this monitoring contributes to the generation of the State's Clean Water Action Section 305(b) (Water Quality Inventory) biennial report, and to updating the 303(d) list of water quality limited stream segments, or Clean Water Action Section 303(d) list. AMNET samples over 800 stream sites Statewide, with approximately 200 sites in each of five major drainage basins (upper and lower Delaware, greater Passaic, Raritan and Atlantic). Sixty stations are located directly downstream from dams. By monitoring downstream from dams for changes to macroinvertebrates, which are ubiquitous in freshwater and estuarine environments and play an integral role in the aquatic food web, the State will be able to document the health of these aquatic ecosystems and protect the resources by detecting any changes and making revisions through implementation of best management practices, as described above.

New Jersey also uses its TMDL process to identify and correct temperature and other water quality impairments from dams. For example, the NJDEP established TMDLs for temperature impairments in the Pequannock River Watershed located in New Jersey's Morris and Passaic Counties, Watershed Management Area (WMA) 3. Implementation strategies for this TMDL include stream bank restoration, beaver dam removal and coordinating with the City of Newark to adjust its operation plan for reservoirs along the river to ensure temperatures remain at an appropriate level.

Finally, New Jersey has designed and installed fish ladders at dams, weirs, and tide gates to enhance blueback and alewife (collectively referred to as river herring) migration and habitat. River herring are anadromous species that serve as important forage fish for recreationally and

commercially important finfish species in New Jersey, such as weakfish, bluefish, and striped bass. New Jersey's currently installed fish ladders have increased access to over 700 acres of spawning and nursery habitat and 100 miles of associated streams and creeks in the State. New Jersey continues to install fish ladders to improve instream habitat around dams.

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

**CONDITION:** Within three years, New Jersey will include in its program, management measures and enforceable policies and mechanisms (where required) in conformity with the Section 6217 guidance for activities and effects not addressed by existing permit authorities.

**DECISION:** New Jersey has met this condition.

**RATIONALE:** New Jersey formally recognizes the important role of wetlands, riparian areas, and vegetated treatment systems in reducing nonpoint source pollution in its Nonpoint Source and Stormwater Management Program Plan. Both the State's Freshwater Wetlands Act (N.J.S.A 13-9B) and its Wetlands Act of 1970 (N.J.S.A 13-9A) are identified as water pollution control programs that address nonpoint source pollution and stormwater management. Furthermore, the Plan proposes a two-pronged approach that will benefit protection of wetlands and riparian areas consisting of: (1) a short-term preventive approach to control priority nonpoint source abatement functions of wetlands implemented Statewide through minimum runoff control requirements for new development, land preservation, and the stewardship of existing forest and open space, and (2) a longer-term preventive approach developed through specific watershed restoration; and protection plans. The approaches will protect wetlands and riparian areas by encouraging techniques such as watershed or regional land use planning, stream corridor protection, and land/forest preservation. In addition, NJDEP has provided additional information on other State programs such as the Wetlands Reserve Program, which permanently helps preserve and protect wetlands in order to promote water quality and improve wildlife habitat.

On November 5, 2007, the NJDEP adopted new Flood Hazard Area Control Act rules (N.J.A.C. 7:13), as well as related amendments to the Coastal Permit Program rules and the Coastal Zone Management rules to incorporate more stringent standards for development in flood hazard areas and riparian zones adjacent to surface waters throughout the State. The NJDEP has adopted these new rules in order to better protect the public from the hazards of flooding, preserve the quality of surface waters, and protect the wildlife and vegetation that exist within and depend upon such areas for sustenance and habitat.

In order to minimize the impacts of development on flooding, a zero-percent net-fill requirement (which was previously implemented only in the Highlands Preservation Area and Central Passaic Basin) will now apply to all non-tidal flood hazard areas of the State. The new rules also expand the preservation of near-stream vegetation (previously protected within 25 or 50 feet of streams) by implementing new riparian zones that are 50, 150 or 300 feet in width along each side of surface waters throughout the State. The riparian zone width depends on the environmental resources being protected, with the most protective, 300-ft riparian zone applicable to waters

designated as Category One and certain upstream tributaries. Certain waters supporting trout, or habitats of threatened or endangered species critically dependant on the watercourse to survive, or watercourses which flow through areas that contain acid-producing soil deposits, receive a 150-ft riparian zone.

The NJDEP has also amended the Coastal Permit Program rules and the Coastal Zone Management rules to incorporate the new flood hazard area and riparian zone standards into the review of all coastal area and Waterfront Development permits, thereby eliminating a gap in the earlier rules under which development in tidal areas was not reviewed under the same standards that applied to non-tidal areas.

NOAA and EPA find that the State has sufficiently demonstrated through its existing authorities, programs, and watershed management planning process that New Jersey sufficiently takes into consideration the protection of wetlands and riparian areas serving a significant nonpoint source pollution abatement function.

### **MONITORING**

**CONDITION:** Within one year, New Jersey will include in its program a plan that enables the State to assess over time the extent to which implementation of management measures is reducing pollution loads and improving water quality.

**DECISION:** New Jersey has met this condition.

**RATIONALE:** New Jersey has developed a plan that will capitalize on water quality monitoring programs the State currently has in place under the Clean Water Act to meet the coastal nonpoint program requirements. First, NJDEP will conduct ambient water quality monitoring through its AMNET program for aquatic systems which will measure progress towards achieving State and Federal water quality goals. The present AMNET program was developed to provide the NJDEP with the enhanced resolution of baseline data necessary to support sound policy decisions in water quality/watershed management, and to direct regulatory activities. AMNET was initiated in 1992, and samples over 800 streams Statewide, with approximately 200 sites in each of five major drainage basins.

The State will continue to use the Clean Water Act Section 319(h) competitive grant program to monitor the effectiveness of the best management practices (BMPs) that are installed using Section 319(h) funds and will apply the same standard to any projects funded using CBT funds. The New Jersey guidelines for Section 319(h) require that the effectiveness of funded BMPs be monitored with a monitoring component appropriate for that BMP. A few examples of monitoring components mentioned in the guidelines include macroinvertebrate monitoring (performed through the AMNET program), demonstrable improvements in relevant surface and ground water quality parameters, opening of previously closed shellfish beds and beaches, and reductions in pollutant loadings (e.g., by pounds or percentage) from nonpoint sources in priority watersheds identified.

The State will require implementation of nonpoint source control measures to remediate impairments listed on the State's Clean Water Act section 303(d) list based upon the development of Total Maximum Daily Loads, or other management measures. The effectiveness of these measures will be monitored over time through the State's ambient chemical and biological monitoring programs.

The biannual New Jersey Integrated Water Quality Report summarizes the results from all the State's water quality monitoring and assessment programs. The report includes trend analyses to observe the effectiveness of management practices over time and identify continually impaired waterbodies where additional focus may be needed.

In addition, NJDEP entered into an agreement with the New Jersey Department of Agriculture to establish an Agricultural Nonpoint Source Pollution Program as an important component in the development of programs to achieve the State's water quality goals. The funds for this program are to be used as follows: 1) identify and profile agricultural nonpoint sources; 2) develop and implement management practices to control agricultural nonpoint sources; and 3) monitor that the management practices are targeted at identified agricultural nonpoint source impacts. The State and Federal funds are administered through the joint Conservation Cost Share and Environmental Quality Incentives Program (EQIP).

By using these programs, the State will be able to evaluate the effectiveness of management measures in controlling nonpoint source pollution on both a watershed and individual BMP basis, as well as estimate reductions in pollutant loads and assess water quality improvements.