
DEPARTMENT OF ENVIRONMENTAL PROTECTION

LAND USE MANAGEMENT

WATER MONITORING AND STANDARDS

Surface Water Quality Standards

Proposed Amendments: N.J.A. C. 7:7A-1.4

Proposed Readoption with Amendments: N.J.A.C. 7:9B-1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.12, 1.13, 1.14, and 1.15

Proposed Amendments: N.J.A.C. 7:14A-1.2 and 13

Authorized By:	Mark N. Mauriello, Acting Commissioner Department of Environmental Protection
Authority:	N.J.S.A. 58:10A-1 *et seq.*, 58:11A-1 *et seq.*, N.J.S.A. 13:1D-1 *et seq*.
Calendar Reference:	See Summary below for explanation of exception to calendar requirement.
DEP Docket Number:	07-09-03/454
Proposal Number:	

Public hearing concerning this proposal will be held on **June 4, 2009** from

3:30 PM to 5:00 PM or close of testimony, whichever occurs first and
6:00 PM to 7:00 PM or close of testimony, whichever occurs first, at:

Department of Environmental Protection
401 East State Street
Public Hearing Room
Trenton, NJ 08625

Submit written comments by June 19, 2009 to:

Gary J. Brower, Esq.
Attn. DEP Docket Number 07-09-03/454
Office of Legal Affairs
New Jersey Department of Environmental Protection
401 East State Street, Floor 4
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The New Jersey Department of Environmental Protection (Department) requests that commenters submit comments on disk or CD as well as paper. Submittals on disk or CD must not be access-restricted (locked or read-only) in order to facilitate use by the Department of the electronically submitted comments. Submission of a disk or CD is not a requirement. The Department prefers Microsoft Word 6.0 or above. MacIntosh formats should not be used. Each comment should be identified by the applicable N.J.A.C. citation, the commenter's name and affiliation following the comment.

Copies of this rule proposal can be downloaded electronically from the Department's web page at http://www.state.nj.us/dep/rules.

The agency proposal follows:

SUMMARY

The Department is proposing to readopt the Surface Water Quality Standards (SWQS) at N.J.A.C. 7:9B with amendments. As the Department has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirement pursuant to N.J.A.C. 1:30-3.3(a)5.

The Department administers the SWQS for the protection of high quality water and to restore impaired waters. The Department develops and administers the SWQS pursuant to the Water Quality Planning Act (WQPA), N.J.S.A. 58:11A-1 *et seq*. and the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 *et seq*. The SWQS are further developed and administered in conformance with requirements of the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq*., commonly known as the Clean Water Act (CWA), and the Federal regulatory program established by the United States Environmental Protection Agency (USEPA) at 40 CFR Part 131. The SWQS include general requirements, use designations, classifications, antidegradation categories, and water quality criteria applicable to the surface waters of the State. The SWQS are established to address the Department's responsibilities to conduct a continuous

planning process pursuant to Section 303 of the CWA, 33 U.S.C. § 1313, and the WQPA, N.J.S.A. 58:11A-1 *et seq*. The SWQS establish the designated uses to be achieved for individual waterbodies and specify the water quality criteria necessary to achieve those uses. Designated uses include drinking water, propagation of fish and wildlife, recreation, agricultural and industrial supplies, and navigation. As part of this process, the Department establishes stream classifications and an antidegradation designation for each waterbody. Changes to the stream classification, designated uses, water quality criteria, and antidegradation designation are accomplished through rulemaking.

The SWQS are utilized by New Jersey Pollutant Discharge Elimination System (NJPDES) (N.J.A.C. 7:14A) surface water discharge permitting program in the development of water quality-based effluent limitations (WQBEL) to protect or improve existing water quality and designated uses. They are also utilized by the Department's Site Remediation Program (N.J.A.C. 7:26E) to ensure discharges flowing to surface water comply with the SWQS. The Land Use Regulation Program, through the Freshwater Wetlands Program (N.J.A.C. 7:7A), the Coastal Permitting Program (N.J.A.C. 7:7E), and the Flood Hazard Area Control Act Program (N.J.A.C. 7:13), also utilizes the SWQS to establish permit requirements.

The Department readopted the SWQS on May 18, 1998 (30 N.J.R. 1778(a)) with a chapter expiration date of April 18, 2003. Since 1998, the Department completed seven rounds of rulemaking primarily to upgrade stream classification/antidegradation designations. In 2006 (see 38 N.J.R. 4449(a), October 16, 2006) the Department updated toxics criteria for aquatic life and human health protection, temperature, ammonia, mixing zones, and pathogens. The rules were scheduled to expire on March 19, 2009. In accordance with N.J.S.A. 52:14B-5.1c, the expiration date has been extended to September 15, 2009 as a result of this proposal to readopt the rules with amendments.

The Department is proposing several amendments as part of this readoption. Revisions to the nutrient policies and phosphorus criteria, inclusion of a new range of pH criteria applicable to

southern coastal waters and new stream classification table for waters subject to the new pH criteria, revised temperature criteria and an updated cyanide criterion are being proposed at this time. Other proposed amendments included a new policy encouraging reclaimed water for beneficial uses, a proposal to use the Integrated Water Quality Monitoring and Assessment Methods to identify impaired waters, and a procedure to update certain criteria through notice in the New Jersey Register.

The following is a summary of the existing rules at N.J.A.C. 7:9B proposed for re-adoption and of the proposed amendments:

N.J.A.C. 7:9B-1.1 - Scope of subchapter, sets forth the scope of N.J.A.C. 7:9B with respect to the protection and enhancement of the surface water resources of the State of New Jersey. The Department is proposing to readopt this section without change.

N.J.A.C. 7:9B-1.2 - Construction, states that the chapter shall be liberally construed to permit the Department and its various divisions to discharge their statutory functions. The Department is proposing to readopt this section without change.

N.J.A.C. 7:9B-1.3 - Severability, states that if any portion of the SWQS is found to be invalid, the remainder of the chapter shall not be affected. The Department is proposing to readopt this section without change.

N.J.A.C. 7:9B-1.4 - Definitions, contains definitions of terms used in this chapter. A description of the proposed changes to the section follows:

The designated uses and criteria applicable to the mainstem of the Delaware River are governed by the Delaware River Basin Commission, water quality regulations, (see N.J.A.C. 7:9B-1.13(a) and 1.14(h)). The Department is proposing a new definition of the term "DRBC Water Quality Regulations" which means the DRBC Administrative Manual – Part III Water

Quality Regulations dated September 27, 2006 including all amendments and supplements thereto, to refer to the same regulations currently cited at N.J.A.C. 7:9B-1.13(a) and 1.14(h). The definition will be updated, if necessary, in the future, rather than updating all the references in the existing rule regarding the DRBC regulations. The full title of the DRBC rule in N.J.A.C. 7:9B-1.13, and 1.14(h) are proposed to be replaced with the term "DRBC Water Quality Regulations".

The Department is proposing to amend the definition of "shellfish waters" to be consistent with the definition used in the Shellfish Growing Water Classification rules, N.J.A.C. 7:12, and to ensure that the exact locations of these waters are identified. The exclusion areas identified in the existing definition of shellfish waters are not current because these areas change based on annual evaluations. Therefore, the Department is proposing to amend the definition to specify that the "shellfish waters" means waters classified as Approved, Seasonally Approved, Special Restricted, Seasonally Special Restricted or Condemned in accordance with the Shellfish Growing Water Classification rules, N.J.A.C. 7:12.

The Department is proposing a new definition of "site-specific criteria" which means an alternative criterion established at N.J.A.C. 7:9B-1.14(g), in place of an existing Statewide criterion, to protect existing or designated uses for specified waterbody(ies). Site-specific criteria are developed based on site-specific data through a TMDL or by the recalculation of existing criteria using updated toxicity data. Development of site-specific criteria is an existing option in the SWQS.

The Department is proposing a new definition of "watershed-specific translators" which means numeric translators established to demonstrate compliance with the narrative criteria at N.J.A.C. 7:9B-1.14(d)5i, to protect existing or designated uses for a specified watershed. Watershed-specific translators may only be established as part of a TMDL evaluation pursuant to N.J.A.C. 7:15-6.3 to demonstrate compliance with the narrative criteria. The narrative criteria specifies that the concentrations shall not render the waters unsuitable for the existing or

designated uses. Watershed-specific translators may be an alternative criterion or a combination of criteria. For example, a watershed-specific translator could be a variation of the existing phosphorus criterion, criteria established for a new parameter such as Chlorophyll *a*, or a combination of criteria for different parameters (for example, Chlorophyll *a* and dissolved oxygen).

The Department is proposing to amend several definitions, including "Best management practices" or "BMPs", "Category one waters", "FW1", “Nontrout waters”, "Pinelands waters", "Surface water classifications", "Trout maintenance waters", and "Trout production waters." These proposed amendments make changes necessary to reflect recodification of other amendments proposed at this time or editorial changes.

The Department is also proposing to amend the definition of “Category One waters” in the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-1.4 and New Jersey Pollutant Discharge Elimination System at N.J.A.C. 7:14A-1.2. The “Category One waters” definition was revised in the SWQS rules at N.J.A.C. 7:9B-1.4 (see 40 N.J.R. 3707, June 16, 2008). However, the similar definition of this term in the Freshwater Wetlands Protection Act Rules and New Jersey Pollutant Discharge Elimination System rules was inadvertently not amended at that time.

To assure consistency between these definitions of the same term, the Department is proposing to amend the definition of “Category One waters” at N.J.A.C. 7:7A-1.4 and at N.J.A.C. 7:14A-1.2 to provide that “Category One waters" means waters designated as such in the Department's Surface Water Quality Standards at N.J.A.C. 7:9B. This change will assure that any future amendments to the Category One waters definition in the SWQS are automatically reflected in the Freshwater Wetlands Protection Act Rules and the NJPDES rules.

The Department is proposing to delete definitions of "Ambient temperature", "Anadromous fish", "Bioconcentration", "Flow-through bioassay", and "Thermocline" because they are no longer used in the existing rule and deleting the definition of "Limiting nutrient",

because the proposed rule does not use the term. (See proposed amendments to N.J.A.C. 7:9B-1.5(g) and 1.14(d)5).

N.J.A.C. 7:9B-1.5 - Statements of policy includes the policies applicable to the protection and enhancement of surface water resources throughout the State. These include general, interstate, general technical, antidegradation, water quality-based effluent limitation (WQBEL), bioassay and biomonitoring, nutrient policies, and mixing zones. A description of the proposed amendments to N.J.A.C. 7:9B-1.5 follows:

At N.J.A.C. 7:9B-1.5(a)8, the Department is proposing to add a provision to encourage the use of Reclaimed Water for Beneficial Reuse, where feasible. The Department has determined that it is appropriate to establish a policy in the Surface Water Quality Standards to reduce the export of freshwaters, to support meeting future water supply demands and to protect natural resources. As New Jersey's population continues to grow and increasing demands are placed on the State's water resources, more widespread, severe and prolonged water shortages are likely to occur. Thus, facilitating the reuse of treated effluent for water needs will help New Jersey meet its water supply and wastewater management needs. Reclaimed wastewater, once considered a waste for disposal, is now a resource desired by commercial entities, municipalities, county parks, and various recreation departments, and residential developments.

The drought that occurred in the summer of 1999 focused attention on the need to find ways to better conserve and protect the State's water resources. The Department began to investigate water reuse programs already in place for many years in other states such as Florida and California. Such water reuse programs take what was once considered wastewater to be treated and discharged and instead subject the wastewater to a high degree of treatment in order to reuse the resulting effluent for a beneficial purpose. The treated effluent is used, for instance, to irrigate crops, livestock grazing areas, golf courses and landscaping as well as cooling tower make-up water, once-through non-contact cooling water in power generation, and vehicle washing.

In 2005, the Department published a Technical Manual for Reclaimed Water for Beneficial Reuse (RWBR) which set forth guidelines for RWBR as well as guidelines for preparing a reuse feasibility study for wastewater treatment facilities. In 2008, the Department adopted amendments to the Water Quality Management Planning (WQMP) rules at N.J.A.C. 7:15 to specifically require that a proposed new or expanded domestic or industrial treatment works with discharge to surface water, evaluate the feasibility of reclaiming wastewater for beneficial reuse as part of an antidegradation analysis. The applicant is required to conduct a study in accordance with the Department's "Technical Manual for Reclaimed Water for Beneficial Reuse," as amended or supplemented. RWBR shall be implemented to the extent determined to be feasible. The Department, though its existing NJPDES permitting authority, authorizes the use and restrictions associated with RWBR program.

At N.J.A.C. 7:9B-1.5(a)9, the Department is proposing to specify that the Integrated Water Quality Monitoring and Assessment Methods Document (Methods Document), developed pursuant to N.J.A.C. 7:15-6.2, is to be utilized to identify whether waterbodies meet the water quality standards in this Chapter. Since 2001, the United States Environmental Protection Agency (USEPA) has recommended that states integrate their Water Quality Inventory Report (required under Section 305(b) of the federal Clean Water Act (Act)) with their List of Water Quality Limited Segments (required under Section 303(d) of the Act). The Integrated Report includes an "Integrated List" that combines the reporting requirements of Sections 305(b) and 303(d) of the Act. The Integrated List is subject to regulatory requirements, which include public participation and submission to USEPA for approval and adoption. The Integrated List identifies the status of all applicable designated uses for every assessment unit. Section 303(d) requires states to produce a list of waters referred to as the "List of Water Quality Limited Segments" or the "303(d) List" that are not meeting surface water quality standards (SWQS) despite the implementation of technology-based effluent limits and thus require the development of total maximum daily loads (TMDLs).

The Methods Document is revised, as needed, and subject to public comment as required pursuant to N.J.A.C. 7:15-6.2 prior to developing the Integrated List. This provides the public and the USEPA with an opportunity to evaluate the methods used to collect, analyze, and interpret data, and place assessment units on their respective sublists. The Methods Document provides an objective and scientifically sound assessment methodology, including a description of the data the Department will use to assess attainment of the designated uses; the quality assurance aspects of the data; a detailed description of the methods used to evaluate designated use attainment; and the rationale for the placement of assessment units on one of the five sublists.

At N.J.A.C. 7:9B-1.5(c)6, the Department is proposing to delete metal translators and recodify them to the NJPDES rules at N.J.A.C. 7:14A-13.6(c). The Department is proposing to replace this policy with a new provision that provides for update of criteria at N.J.A.C. 7:9B-1.14(f) or (g) in certain circumstances (described below) through publication of a notice of administrative change in the New Jersey Register.

The Department has determined that the metal translators policy, currently codified at N.J.A.C. 7:9B-1.5(c)6, more appropriately belongs in the NJPDES rules, N.J.A.C. 7:14A. These requirements do not pertain to surface water quality criteria, but are used in developing and expressing effluent limitations in NJPDES Discharge to Surface Water permits. These provisions apply to those permits that contain water quality based effluent limitations based on surface water quality criteria for metals expressed as the dissolved fraction.

The USEPA issued a policy memorandum on October 1, 1993, entitled *Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria,* in recognition that the dissolved fraction is a better representation of the biologically available portion of the metal than is the total or total recoverable fraction. USEPA's Office of Water recommended that dissolved metal concentrations be used for the application of metals aquatic life criteria and that State water quality standards for the protection of aquatic life be

based on dissolved metals. These dissolved metals criteria were calculated by multiplying total recoverable criteria by conversion factors. In 1995, USEPA adopted conversion factors to convert the total recoverable metals values into dissolved metals values as part of the *Establishment of Numeric Criteria for Priority Pollutants; States Compliance-Revisions of Metals Criteria*. (60 Fed. Reg. 22229, May 4, 1995 and 60 Fed. Reg. 44120, August 24, 1995) (http://www.epa.gov/fedrgstr/EPA-WATER) together referred to as the National Toxics Rule (NTR). In 1996, the USEPA recommended that conversion factors developed in 1995 to establish the water quality criteria as "dissolved" can also be used to translate the dissolved criteria back to total recoverable metal where a site-specific translator has not been developed in accordance with *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion* (EPA 823-B-96-007).

The USEPA conversion factors were calculated inconsistently using toxicity tests at varying lengths of exposure time that were averaged at several intervals in the process of conversion factor derivation. To correct the inconsistency in the USEPA method of calculating the conversion factors, Dr. Thomas Fikslin, Delaware River Basin Commission (DRBC), recalculated the conversion factors for cadmium, chromium III, chromium VI, copper, lead, nickel, and zinc using time weighted averages that provided equal time weighting over the test duration. The DRBC conversion factors were published in the *Revised Procedure for Converting Total Recoverable Water Quality Criteria for Metals to Dissolved Criteria*, 1995, DRBC (http://www.state.nj.us/drbc). The USEPA evaluated the DRBC conversion factors and determined that these factors represent a different, reasonable interpretation of the data that will result in water quality criteria that adequately protect aquatic life. (Letter dated March 4, 1998 from Jeanette Wiltse, Director of Health and Ecological Criteria to Vincent P. D'Anna, Federal Commissioner, DRBC).

N.J.A.C. 7:14A-13.14(b) requires the Department to establish permit limits as total recoverable metal to address the chemical differences between the effluent discharge and the receiving water body due to changes in the partitioning between dissolved and adsorbed forms of

metal. The translator determines what fraction of total recoverable metal is present in the receiving stream downstream of the discharge.

The Department is proposing to amend the metal translator values for freshwater acute and chronic cadmium, chromium III, chromium VI, copper, lead, nickel, and zinc based upon the DRBC recalculated translators as described below. In addition, the Department is proposing to add translators for chronic freshwater and saline mercury from the National Recommended Water Quality Criteria based on the translators published by USEPA in 2006 (*National Recommended Water Quality Criteria*. Office of Water, USEPA 2006. http://www.epa.gov/waterscience/criteria/wqctable/nrwqc-2006.pdf). The Department is proposing to update the metal translators listed in bold below and recodify the updated metals translator table at N.J.A.C. 7:14A-13.6(c).

Metal	Freshwater Acute		Freshwater Chronic		Saline Acute		Saline Chronic		Basis for change
	Existing	Updated	Existing	Updated	Existing	Updated	Existing	Updated	
Arsenic	1	No change	1	No change	1	No change	1	No change	No change
Cadmium	0.944*	**0.651**	0.909*	**0.651**	0.994	No change	0.994	No change	DRBC
Chromium III	0.316	**0.277**	0.86	**0.277**	N/A	No change	N/A	No change	DRBC
Chromium VI	0.982	**0.919**	0.962	**0.919**	0.993	No change	0.993	No change	DRBC
Copper	0.96	**0.908**	0.96	**0.908**	0.83	No change	0.83	No change	DRBC
Lead	0.791*	**0.723**	0.791*	**0.723**	0.951	No change	0.951	No change	DRBC
Mercury	0.85	No change	N/A	**0.85**	0.85	No change	N/A	**0.85**	USEPA
Nickel	0.998	**0.846**	0.997	**0.846**	0.99	No change	0.99	No change	DRBC
Selenium	N/A	No change	N/A	No change	0.998	No change	0.998	No change	No change
Silver	0.85	No change	N/A	No change	0.85	No change	N/A	No change	No change
Zinc	0.978	**0.95**	0.986	**0.95**	0.946	No change	0.946	No change	DRBC

The Department is proposing to replace N.J.A.C. 7:9B-1.5(c)6, with a new provision to update existing human health criteria at N.J.A.C. 7:9B-1.14(f) through a notice of administrative change in the New Jersey Register in certain limited circumstances. When the Department promulgates a new or revised maximum contaminant level (MCL) in the Safe Drinking Water Act rules at N.J.A.C. 7:10 for an existing human health criterion, the Department will update the human health criteria using the toxicity factor used to establish the MCL and will incorporated the updated criterion at N.J.A.C. 7:9B-1.14(f)7 through a notice of administrative change in the New Jersey Register. Similar provisions establishing procedures for updating existing criteria through an administrative change have already been incorporated into the Department's Ground Water Quality Standards at N.J.A.C. 7:9C-1.7(c)5.

In September 2005, the Department proposed major amendments to the SWQS's human health criteria at N.J.A.C. 7:9B-1.14(f)7. (See 37 N.J.R. 3480(a), September 10, 2005). In this proposal, the Department identified how it utilized toxicity information from the New Jersey Drinking Water Quality Institute (NJDWQI) to derive criteria. The New Jersey Drinking Water Quality Institute (NJDWQI), established under the 1984 amendments to the New Jersey Safe Drinking Water Act (NJSDWA) (commonly known as the A-280), develops and recommends drinking water standards pursuant to N.J.S.A. 58:12A-13. For toxic substances which have been addressed by the NJDWQI, the Department used the toxicity factors which form the basis of the health-based levels for drinking water rather than those from IRIS for developing criteria for surface water. Because of the interface of surface water with drinking water and ground water, the Department uses the toxicity factors developed pursuant to the NJSDWA to provide a consistent level of human health protection for all water-related programs. The Department proposes at N.J.A.C. 7:9B-1.5(c)6, that when Department amends the Safe Drinking Water Act rules to establish or revise an MCL, the Department will determine the impacts on the human health criteria and publish a notice in the New Jersey Register providing the revised toxicity information and the new human health criteria. The SDWA rule proposal will identify changes that will result in updates to the SWQS.

At N.J.A.C. 7:9B-1.5(c)8, the Department is proposing to revise the allowable increase in stream temperature caused by a discharge without exceeding the temperature criteria at N.J.A.C. 7:9B-1.14(d)11 based upon the changes being proposed to the temperature criteria for FW2 streams. The Department's Division of Fish and Wildlife reviewed and considered scientific literature, guidelines, surface water quality standards from other jurisdictions, and general conditions prevailing in New Jersey surface waters in developing recommendations for temperature criteria. Based on the Division of Fish and Wildlife recommendations the Department is proposing amendments to N.J.A.C. 7:9B-1.5(c)8i(1) and (2) to revise the allowable increase in stream temperature caused by a discharge without exceeding the temperature criteria. The revisions proposed at N.J.A.C. 7:9B-1.5(c)8i(1) and (2) are changes to reflect more accurate values, and replace the existing values which were rounded. In addition, the Department is also proposing to correct the spelling of Fahrenheit at N.J.A.C. 7:9B-1.5(c)8i(1) through (5).

N.J.A.C. 7:9B-1.5(d) contains the Department's antidegradation policies applicable to all surface waters of the State. The purpose of the antidegradation policies is to maintain and protect existing uses and water quality. Federal antidegradation requirements at 40 CFR 131.12 require states to develop, adopt, and implement a statewide antidegradation policy. Antidegradation policies ensure that the level of water quality needed to protect existing uses is maintained. If the existing water quality does not meet water quality standards, actions required to improve water quality. In addition, water quality better than necessary to protect existing uses shall be maintained and protected unless lower water quality is necessary to accommodate important economic or social development in the area.

The Department proposed changes to the antidegradation policy in 2005 to clarify expectations for Category Two waters. Concerns were raised with the proposed amendments because of the close linkage with the State Plan and issues related to unused capacity or existing water quality. Therefore, the proposed changes were not adopted.

As part of the readoption of the Water Quality Management Planning Rules at N.J.A.C. 7:15, the Department adopted implementation procedures designed to maintain existing water quality (40 N.J.R. 4000(a), July 7, 2008). These provisions indicated that where new or expanded wastewater facilities with a discharge to surface water are proposed, the antidegradation requirements of the Surface Water Quality Standards, N.J.A.C. 7:9B-1.5(d), must be met. At N.J.A.C. 7:15-5.25(d)3, the Water Quality Management Planning rules establish a hierarchy for wastewater treatment and disposal alternatives that must be evaluated as part of the antidegradation analysis. The applicant for a new or expanded discharge must evaluate reclaimed water for beneficial uses and implement to the extent feasible. The second alternative is to evaluate increasing flow and improving the quality of treatment at the facility to maintain the current pollutant load authorized in the existing NJPDES permit. To the extent that the pollutant load increase cannot be avoided, the Department shall impose water quality based effluent limits calculated based on a Department approved water quality study to maintain the existing water quality. If the facility cannot comply with water quality based effluent limits, the applicant must adjust the sewer service area such that the wastewater generated by the facility does not exceed the permitted capacity unless the facility discharges to a Category Two stream and makes a successful demonstration pursuant to N.J.A.C. 7:9B-1.9(a) that a lowering in quality is justified.

The Water Quality Management Planning Rules at N.J.A.C. 7:15, established implementation procedures for evaluating whether a new or expanding discharge comply with the antidegradation policy at N.J.A.C. 7:9B-1.5(d). Therefore, the Department is proposing minor amendments to clarify and update the existing antidegradation policies at N.J.A.C. 7:9B-1.5(d). The proposed amendments are generally summarized in the following chart and described in further detail below:

Proposed Antidegradation Policies Summarized

Existing Rule	Proposed Rule	Proposed Change
1.5(d)	1.5(d)	Move reference to all surface waters from (d)1.

1.5(d)1	1.5(d)1	Moved (d) 2 to (d)1.
1.5(d)2	1.5(d)1i	Added that maintenance, migration, and, propagation of threatened and endangered species is an existing use which shall be maintained and protected.
1.5(d)3 & 4	1.5(d)1ii & iii	No change in text
1.5(d)5	1.5(d)1iv	No change in text
1.5(d)6	1.5(d)2	Minor editorial change
1.5(d)6i	1.5(d)2i	No change in text
1.5(d)6ii	1.5(d)2ii	No change in text
1.5(d)6ii(1)	1.5(d)2ii(1)	No change in text
1.5(d)6ii(2) & (3)	1.5(d)2ii(2)	Revised – No new or extended discharges allowed unless authorized by Pinelands Commission.
1.5(d)6iii	1.5(d)2iii	No change in text
1.5(d)6iv	1.5(d)2iv	No change in text
1.5(d)7	1.5(d)1v	Clarification
1.5(d)8	1.5(d)1vi	No change in text
1.5(d)9	1.5(d)1vii	No change in text
	1.5(d)2v	New provision – Antidegradation policies for Delaware River's Special Protection Waters is as specified in the DRBS regulations.

At N.J.A.C. 7:9B-1.5(d) the Department is proposing to incorporate into the lead-in to this subsection that the antidegradation policies are applicable to all surface waters of the State. This policy is currently codified at N.J.A.C. 7:9B-1.5(d)1.

At N.J.A.C. 7:9B-1.5(d)1, the Department is proposing to add a provision that existing uses shall be maintained and protected and that designated uses shall be maintained or, as soon as technically and economically feasible, be attained wherever these uses are not precluded by natural conditions. This provision is currently codified at N.J.A.C. 7:9B-1.5(d)2.

At N.J.A.C. 7:9B-1.5(d)1i the Department is proposing an amendment to clarify that the presence of Threatened and Endangered species, as defined by the Endangered Species Act of 1973, 16 USC 1531 *et seq*. and the New Jersey Endangered and Nongame Species Conservation Act of 1973, N.J.S.A. 23:2A-1 *et seq*. is an existing use that must be protected. This new sub-paragraph addresses one of the findings of United States Fish and Wildlife Service' (USFWS) Biological Opinion Document *(Biological opinion on the effects of the U.S. Environmental Protection Agency's approval of the state of New Jersey's surface water quality standards on the bald eagle, peregrine falcon, and dwarf wedgemussel.* U.S. Department of the Interior, Fish & Wildlife Service, New Jersey Field Office, Pleasantville, New Jersey. 1996). A copy of this document can be obtained from the Department's website at http://www.state.nj.us/dep/wms/bwqsa/.

The Department is proposing to recodify existing N.J.A.C. 7:9B-1.5(d)3 and 4 to N.J.A.C. 7:9B-1.5 (d)1ii. and iii. No change in text is proposed. In addition, the Department is recodifying existing N.J.A.C. 7:9B-1.5(d)5 to N.J.A.C. 7:9B-1.5(d)iv and N.J.A.C. 7:9B-1.5(d)7 through 9 to N.J.A.C. 7:9B-1.5(d)v through vii with no change in the meaning of these provisions.

The Department is proposing to recodify N.J.A.C. 7:9B-1.5(d)6, which specifies the antidegradation standards that are applicable to waters classified in each of the antidegradation designations tiers, to N.J.A.C. 7:9B-1.5(d)2 and modified as described below. The waters of the State are each assigned an antidegradation designation based upon the level of protection determined by the Department to be appropriate considering several factors which include, but are not limited to, physical location, occurrence of trout, shellfish, threatened and endangered species, and potable water supply.

Proposed N.J.A.C. 7:9B-1.5(d)2i, describes the antidegradation standard for nondegradation or FW1 waters, which are currently codified at N.J.A.C. 7:9B-1.5(d)6i. This provision is recodified with no change in text.

Proposed N.J.A.C. 7:9B-1.5(d)2ii describes the antidegradation standard for Pinelands waters. This provision is presently codified at N.J.A.C. 7:9B-1.5(d)6ii. The existing provision at N.J.A.C. 7:9B-1.5(d)6ii(1) is proposed to be recodified to N.J.A.C. 7:9B-1.5(d)2ii.(1). At N.J.A.C. 7:9B-1.5(d)2ii(2), the Department is proposing that new or expanded discharges are prohibited unless authorized by the Pinelands Commission in accordance with Pinelands Comprehensive Management Plan, Subchapter 4, Part V-Waiver of Strict Compliance with Provisions of The Comprehensive Management Plan (N.J.A.C. 7:50-4.61 through 70). Those dischargers that held valid NJPDES permits as of May 20, 1985, were allowed to continue discharging under the terms of their existing NJPDES permits provided that the discharge did not create water quality problems and maintained the designated uses. However, if the Department determined that the facility caused a water quality problem the NJPDES permit was modified to require the facility to eliminate the water quality problem. However, in accordance with the Pinelands Comprehensive Management Plan, the Department required NJPDES facilities to cease discharge to PL waters where feasible.

Proposed new text at N.J.A.C. 7:9B-1.5(d)2ii is consistent with the existing policy. The Department is proposing to delete existing N.J.A.C. 7:9B-1.5(d)6ii(2) and (3) because these provisions are incorporated into the proposed provision at N.J.A.C. 7:9B-1.5(d)2ii(2). The Pinelands Commission has required all facilities that had valid NJPDES permits to discharge to the surface waters within their jurisdiction to cease discharge where feasible. All facilities discharging in 1985 have completed evaluations to determine whether it was feasible to cease the discharge to PL waters. Where feasible, the facilities ceased discharge to PL water. However, six facilities have been granted waivers by the Pinelands Commission to continue discharging to PL waters. These facilities are listed below:

NJPDES Number	**Facility Name**	**Permitted Flow (MGD)**
NJ0025160	Hammonton Sewage Treatment Plant	1.60

NJ0004642	Naval Air Engineering Center	0.28
NJ0021717	Buena Borough Municipal Utilities Authority	0.40
NJ0021326	Medford Lakes Boro	0.55
NJ0022438	Helen A Fort Middle School	0.05
NJ0032441	Scholler Inc.	0.08

Proposed N.J.A.C. 7:9B-1.5(d)2iii describes the antidegradation standard for Category One waters currently codified at N.J.A.C. 7:9B-1.5(d)6iii. The Department is recodifying this provision without amendment.

Proposed N.J.A.C. 7:9B-1.5(d)2iv describes the antidegradation standard for Category Two waters currently codified at N.J.A.C. 7:9B-1.5(d)6iv. The Department is recodifying this provision without amendment.

Proposed N.J.A.C. 7:9B-1.5(d)2v describes the antidegradation policy for the mainstem of the Delaware River. The designated uses, and criteria to protect these designated uses applicable to Delaware River are specified in the Delaware River Basin Commission's (DRBC) Water Quality Regulations. In addition, the DRBC has established procedures for upgrading sections of the Delaware River basin as "Special Protection Waters". This antidegradation designation is similar to the Department's Category One Antidegradation designation. The waters designated as "Special Protection Waters" and implementation procedures are contained in DRBC Water Quality Regulations - Article 3 Section 3.10.3A2.

At N.J.A.C. 7:9B-1.5(e)4, the Department is proposing minor editorial changes to delete extra commas from the text.

The Department is proposing to revise N.J.A.C. 7:9B-1.5(f), recodify the existing policies at N.J.A.C. 7:9B-1.5(f)1 to N.J.A.C. 7:14A–13.6(d) with changes, and delete the policies at N.J.A.C. 7:9B-1.5(f)2 through 4. The revised policy at N.J.A.C. 7:9B-1.5(f) indicates that the

whole effluent toxicity requirements shall be established for NJPDES point sources in accordance with N.J.A.C. 7:14A–13.6(d). Whole effluent toxicity testing is used to evaluate the overall effects of a wastewater effluent on aquatic life in the receiving stream. The NJDPES program develops and imposes effluent limitations using the more stringent acute or chronic test procedures. The NJPDES permit specifics the species to be used for testing based the salinity of the receiving stream and the type of testing required. The Department has determined that the provisions at N.J.A.C. 7:9B-1.5(f)1 more appropriately belong in the NJPDES rules, N.J.A.C. 7:14A. The Department is proposing to recodify the existing provisions at N.J.A.C. 7:9B-1.5(f)1i to N.J.A.C. 7:14A-13.6(d)1 as "Whole effluent toxicity test species selection criteria" with minor changes. Existing N.J.A.C. 7:9B-1.5(f)1i is proposed to be recodified to N.J.A.C. 7:14A-13.6(d)1 with an amendment to reflect that whole effluent toxicity testing is currently used in the NJPDES program rather than bioassay testing. Existing N.J.A.C. 7:9B-1.5(f)1ii is proposed to be recodified to N.J.A.C. 7:14A-13.6(d)2 without change. The Department is proposing recodify N.J.A.C. 7:9B-1.5(f)1iii to N.J.A.C. 7:14A-13.6(d)3. The current reference to bioassay test protocol is proposed for deletion as bioassay testing is not utilized by the NJPDES program. The existing provisions at N.J.A.C. 7:9B-1.5(f)2, 3, and 4 are being deleted because they are no longer necessary. N.J.A.C. 7:9B-1.5(f)2 is no longer necessary because this provision is focuses on acute whole effluent toxicity testing and the Department utilizes a water quality based approach and in most cases, imposes more stringent chronic testing requirements. N.J.A.C. 7:9B-1.5(f)3 is proposed to be deleted because the NJPDES program currently may require any type of monitoring to characterize the toxicity of a discharge in an individual NJPDES permit and not just the methods identified at N.J.A.C. 7:9B-1.5(f)3i through iii. The Department is also proposing to delete N.J.A.C. 7:9B-1.5(f)4 because the Department now uses the USEPA recommended 304(a) criteria and the procedures developed for the USEPA to develop aquatic life criteria.

N.J.A.C. 7:9B-1.5(g) - Nutrient Policies:

Nutrients, in and of themselves, are not generally harmful to the environment; in fact, they are necessary to promote growth among living things. Under healthy conditions, nutrients exist as part of a balanced natural aquatic system. Excessive concentrations of nitrogen or

phosphorus can cause adverse ecological impacts to surface waterbodies, such as acceleration of or "cultural" eutrophication, an otherwise natural aging condition of such waterbodies, which in turn can cause impairment of existing and designated uses such as aquatic life, drinking water, and recreation.

Nationally, the USEPA has identified nutrients as a leading cause of water quality impairment. As a consequence, the protection and restoration of the nation's waters from nutrient pollution is a top priority. The effects of nutrient over-enrichment are significant and extensive. Nutrients have been associated with ecological impacts that include harmful algal blooms, loss of aquatic habitats, fish kills, natural flora and fauna replacement, hypoxic zones, siltation issues, and loss of spawning habitats. It is widely recognized that excessive productivity can be influenced by many causes. Physical and chemical factors can influence nutrient dynamics/availability. These include flow regime, water depth, retention time, land use, channel morphology, stream bank stability, pool/riffle sequence, canopy cover, bottom substrate, water color, organic content, and temperature. These in turn impact productivity, vegetation and aquatic life diversity.

The USEPA published nutrient criteria (*Nutrient Criteria Technical Guidance Manual, Rivers and Streams*, EPA 822-B-00-002, July 2000) to assist and guide states in developing methodologies to assess nutrient status and in developing regional-specific numeric nutrient criteria. On November 14, 2001, the USEPA issued a memorandum providing additional guidance to states and recommending that states develop nutrient criteria plans to outline procedures for establishing numeric nutrient criteria or, in the alternative, numeric translators for narrative standards.

In response to the USEPA guidance, the Department developed the *New Jersey Nutrient Criteria Enhancement Plan* (www.state.nj.us/dep/wms/bwqsa) to guide the development of criteria. This document describes the strategy, research, priorities, milestones, and schedule for developing and adopting nutrient criteria for all waters of the State.

New Jersey's SWQS include both a numeric criteria for phosphorus in freshwaters and a narrative criteria describing conditions that could occur where the levels of nutrients are excessive. New Jersey has used the numeric phosphorus criteria to identify impaired waters and to develop total maximum daily loads (TMDLs) and NJPDES permits.

TMDLs are required, under Section 303(d) of the Federal Clean Water Act, to be developed for waterbodies that cannot meet surface water quality standards. TMDLs represent the assimilative or carrying capacity of the receiving water taking into consideration point and nonpoint sources of pollution, natural background, and surface water withdrawals. A TMDL is developed as a mechanism for identifying all the contributors to surface water quality impacts and setting goals for load reductions for specific pollutants as necessary to meet surface water quality standards. A TMDL establishes Waste Load Allocations and Load Allocations for point and nonpoint sources, respectively. Where TMDLs are required to address documented surface water quality impairment, allocations are made to the varying sources contributing to the water quality problem in order to reduce the total pollutant load received by the waterbody. Load reduction goals established through TMDLs are achieved through the issuance of wasteload allocations for point source discharges and load allocations for nonpoint source discharges (see http://www.nj.gov/dep/watershedmgt/tmdl.htm for more information on TMDLs).

The regulation of point sources that establish water quality-based effluent limitations and waste load allocations is accomplished under the New Jersey Pollutant Discharge Elimination System (NJPDES) Program. The NJPDES Program protects New Jersey's ground and surface water quality by assuring the proper treatment and discharge of wastewater (and its residuals) and stormwater from various types of facilities and activities. To accomplish this, permits are issued limiting the mass and/or concentration of pollutants which may be discharged into ground water, streams, rivers, and the ocean. The types of regulated facilities can range from very small users such as campgrounds, schools, and shopping centers to larger industrial and municipal

wastewater dischargers. For more information on the NJPDES Program, see www.nj.gov/dep/dwq.

Since 2002, the Department has imposed water quality based effluent limits based on the numeric criteria as NJPDES permits were renewed.

While the numeric criteria in the SWQS remain valid, the Department recognized that the impact on the biological community from nutrients depends not just upon the nutrient level in the water, but also on site-specific factors such as flow regime, water depth, retention time, land use, channel morphology, stream bank stability, pool/riffle sequence, canopy cover, bottom substrate, water color, organic content, and temperature. Based upon this recognition of the impact of site-specific factors, the Department developed a *Technical Manual for Phosphorus Evaluations N.J.A.C. 7:9B-1.14(c) for NJPDES Discharge to Surface Water Permits ("Phosphorus Technical Manual")* to provide the NJPDES permittee an opportunity to demonstrate that the concentration of phosphorus coupled with the site-specific factors applicable at their discharge location did not render the waters unsuitable for their designated uses. The Technical Manual is available at: http://www.nj.gov/dep/dwq/techman.htm.

Water Quality studies conducted pursuant to the Phosphorus Technical Manual were evaluated using response indicators which included dissolved oxygen, dissolved oxygen swing, chlorophyll a and biomass. The thresholds selected were able to discern where phosphorus did not cause impairment. If one indictor exceeded the threshold, the Department concluded that phosphorus did cause impairment and the numeric criterion was appropriate.

The Department's experience implementing the Phosphorus Technical Manual further demonstrated that a single numeric criteria may not be appropriate for all waterbodies and that the narrative criteria is a better way to determine where nutrients cause impairment. In addition, the Department concluded that nutrients need to be evaluated using a "weight of evidence" approach rather than a single response indicator or numeric value for phosphorus. This

experience influenced the development of the Department's Nutrient Criteria Enhancement Plan (NCEP). As indicated above, the NCEP identifies the monitoring and research needed to develop the response indicators to evaluate where nutrients cause impairments.

In order to appropriately utilize the narrative criteria in analyzing nutrient impairment, it is necessary to select appropriate response indicators to determine where nutrients cause impairment. These response indicators must be based on the classification of the waterbody, including whether the water is fresh or saline. Such an approach will ensure a more scientifically based identification of nutrient impairment. Biotic responses to nutrients are highly dependent on physical and chemical characteristics of a water system. Therefore, focusing on response variables instead of casual variables (total phosphorus) provides a more accurate assessment of designated use conditions. Streams with light limitation caused by dense canopy cover and streams with naturally dark colored water will show less algal growth than clear streams without a canopy cover. By evaluating response indicators, the Department will be better able to identify waters where nutrients cause impairment. Better identification of actual impairment will ensure that the Department addresses waters where nutrient levels cause low dissolved oxygen levels, abnormal diurnal fluctuations in dissolved oxygen, objectionable algal densities, nuisance aquatic vegetation and/or changes to the biological community, rather than situations where other factors result in the same nutrient level not impairing designated uses. Focusing on response indicators will improve management decisions for controlling nutrients and allow the Department to properly utilize valuable resources by implementing restoration and prevention activities only where appropriate.

As indicated above, the Department currently has numeric and narrative criteria that apply to all FW waters of the State. The Department is proposing to revise the existing numeric criteria for phosphorus at N.J.A.C. 7:9B-1.14(d)5 and to add a narrative criteria at N.J.A.C. 7:9B-1.14(d)5i. The Department has developed a new assessment method to evaluate the impacts of phosphorus in freshwater streams. The new assessment method is documented in the *Integrated Water Quality Monitoring and Assessment Methods* document (Methods Document)

developed in accordance with N.J.A.C. 7:15-6. The Methods Document outlines how a standard is assessed by specifying data needs, quality assurance requirements, and evaluation procedures to determine if a waterbody is meeting or not meeting the criteria and the waterbody's designated use(s). If a waterbody does not meet its designated uses, the waterbody is listed as impaired pursuant to Section 303(d) of the Federal Clean Water Act (33 U.S.C. § 1313) also known as Sublist 5 in the Integrated Report. This assessment method will be used to evaluate and identify waterbodies that are impaired due to excessive phosphorus. The new assessment method for freshwater streams is included in the 2010 Method Document. This document is available for review at www.state.nj.us/dep/wms/bwqsa.

The new nutrient assessment methodology determines if aquatic life use impairment is due to phosphorus enrichment by a "weight of evidence" approach using the dissolved oxygen concentration, diurnal fluctuation, and biological metrics. Information on the biological metrics used in the assessment method is included in the *Standard Operating Procedures Ambient Biological Monitoring Using Benthic Macroinvertebrates Field, Lab, Assessment Methods* (NJDEP, 2007), available on the Department's Web site at http://www.state.nj.us/dep/wms/bfbm/download/AMNET_SOP.pdf. The Department will identify waters as impaired due to phosphorus when the dissolved oxygen criteria applicable to the waterbody is not attained, the biological metric applicable to the waterbody is impaired and the diurnal dissolved oxygen exhibits abnormal swings. The selected response variables take into consideration the site-specific factors and are consistent with the existing narrative criteria which include "abnormal diurnal fluctuations in dissolved oxygen or pH" and "changes to the compositions of the aquatic ecosystem". Achieving compliance with the narrative criteria by means of these response variables and thresholds will become the overall water quality objective. The Department recognizes that a poor biological condition may not be due the levels of nutrients present. However, when poor biological condition is coupled with dissolved oxygen levels that exceed criteria, and the waterbody experiences significant diurnal dissolved oxygen swings, the Department believes that these response variables indicate excessive photosynthetic activity. In this situation, the Department has determined that it is appropriate to conclude that

the phosphorus concentration is a significant contributor to the poor biological condition. If the biological data indicates impairment, but the minimum dissolved oxygen concentration is not violated or the diurnal fluctuation is not excessive, then the cause of the aquatic life use impairment would not be classified as phosphorus.

The new nutrient assessment method will be used to evaluate whether waterbodies are impaired and, if they are, if phosphorus is the cause. The nutrient evaluation results will be documented in the New Jersey Integrated Water Quality Monitoring and Assessment Report (Integrated Report). The Integrated Report describe attainment of the designated uses of surface waters of the State, such as aquatic life, recreation, drinking water, fish consumption, shellfish consumption, industrial and agricultural. The Department will identify waterbodies that are impaired for aquatic life use due to phosphorus on the 303(d) list.

The Department is aware that in some situations, particularly shallow, slow moving waters without a canopy, waters will exhibit over-enrichment at phosphorus levels below the 0.1 mg/L numeric criteria. In these cases, the Department will apply the numeric phosphorus criteria and reevaluate conditions after implementing the 0.1 mg/L criteria. If the Department determines after implementing controls based on achieving the 0.1 mg/L phosphorus criteria, that the phosphorus levels still result in over-enrichment, the Department may need to develop a TMDL based on a site-specific numeric criteria.

The Department is also proposing, at N.J.A.C. 7:9B-1.5(g)3, that the Department may utilize watershed-specific translators to evaluate compliance with the narrative criteria. Watershed-specific translators may be established as part of a TMDL evaluation pursuant to N.J.A.C. 7:15-6.3 to demonstrate compliance with the narrative criteria and to protect the designated uses. Watershed-specific translators may be a variation of the existing phosphorus criterion, criteria established for a new parameter such as Chlorophyll *a*, or a combination of criteria for different parameters (for example, Chlorophyll *a* and dissolved oxygen). This approach was used to develop the TMDLs for the Passaic and Raritan River basins. (See 40

N.J.R. 2574(b), May 19, 2008. Amendment to the Northeast, Upper Raritan, Sussex County and Upper Delaware Water Quality Management Plans Total Maximum Daily Load Report for the Non-Tidal Passaic River Basin Addressing Phosphorus Impairments).

The Department recognizes that the data necessary to evaluate compliance with the new assessment method may not be available at all freshwater streams. Therefore, all waterbodies currently identified as impaired for total phosphorus on the 303(d) list (based on exceeding the numeric criteria) will remain on the 303(d) list until an evaluation using the new assessment protocol can be performed to determine if phosphorus is rendering the waterbody unsuitable for designated uses. The changes proposed today will not affect any adopted nutrient TMDLs and their associated wasteload allocations and load allocations. However, the Department will utilize the new assessment method in the future to determine whether the waterbodies have been restored and meet the narrative nutrient criteria.

As indicated above, the Department intends to reassess the existing phosphorus listing on the 303(d) list based on the new assessment method where data is available. Water quality studies conducted pursuant to the Phosphorus Technical Manual, in conjunction with other Department data, should provide the data necessary to reevaluate the existing phosphorus listings. This reassessment may result in a determination that phosphorus does not impair the existing uses and the narrative criteria is attained. Where the Department determines that the narrative criteria is not met due to phosphorus, the numeric criteria at N.J.A.C. 7:9B-1.14(d) will be used to develop NJPDES permit limitations and TMDLs in the same manner as is currently done. If the Department determines that narrative criteria is met and that phosphorus does not render the waters unsuitable for their designated uses, phosphorus will not be listed on the 303(d) list. The Department will evaluate whether the effluent limitation for the individual facility may be modified or removed consistent with the NJPDES rules.

The Department is proposing amendments to the nutrient policies at N.J.A.C. 7:9B-1.5(g) and phosphorus criteria at N.J.A.C. 7:9B-1.14(d)5.

The Department is readopting N.J.A.C. 7:9B-1.5(g)1 without change. The Department is proposing to reorganize N.J.A.C. 7:9B-1.5(g)2 for clarity. This paragraph specifies that nutrients shall not be allowed in concentrations that render the waters unsuitable for the existing or designated uses due to objectionable algal densities, nuisance aquatic vegetation, abnormal diurnal fluctuations in dissolved oxygen or pH, changes to the composition of aquatic ecosystems, or other indicators of use impairment caused by nutrients; unless due to natural conditions. The *Integrated Water Quality Monitoring and Assessment Methods Document* specifies the data needs, quality assurance requirements, and evaluation procedures to determine if a waterbody is meeting or not meeting the narrative criteria due to excessive phosphorus.

At N.J.A.C. 7:9B-1.5(g)3, the Department is proposing amendments to allow the Department to utilize watershed-specific translators (for more information on watershed-specific translators, see discussion on nutrients above). This amendment will allow the Department to balance competing designated uses as well as take into consideration critical end-points during the TMDL process. Such translators will be developed through the TMDL process. This will allow the TMDL to establish end points to demonstrate compliance with the narrative criteria and to protect the designated uses.

At N.J.A.C. 7:9B-1.5(g)4, the Department is proposing to update the cross reference to the Effluent Standards at N.J.A.C. 7:9-5.7, which were recodified to the NJPDES rules at N.J.A.C. 7:14A-12 (see 29 N.J.R. 2078, May 5, 1997). In addition, the Department is proposing to add that water quality-based effluent limits will be established, in addition to or more stringent than the effluent standard, as necessary to satisfy a wasteload allocation established through a TMDL, or to meet the criteria at N.J.A.C. 7:9B-1.14(d)5ii or iii where the Department has determined that nutrients render the waters unsuitable in accordance with N.J.A.C. 7:9B-1.14(d)5i. The Department has added a reference to wasteload allocations. As indicated above, TMDLs are required to address documented surface water quality impairment and wasteload allocations represent the allocations made to the varying point sources contributing to the water quality problem in order to reduce the total pollutant load received by the waterbody. Individual

wasteload allocations are likely to translate into water quality based effluent limits more stringent than the effluent standard at N.J.A.C. 7:14A-12.

The Department is proposing editorial changes at N.J.A.C. 7:9B-1.5(g)5 to change the word non-point to nonpoint to be consistent with the definition of nonpoint source at N.J.A.C. 7:9B-1.4.

The Department is proposing to delete N.J.A.C. 7:9B-1.5(g)6, which allows the use of algal biostimulation assay to determine the limiting nutrient. The changes proposed to the phosphorus criteria at N.J.A.C. 7:9B-1.14(d)5 make this provision no longer necessary. The concept of determining the limiting nutrient is considered as part of determining compliance with the narrative criteria. Limiting nutrient evaluation was originally necessary to evaluate whether phosphorus could affect the amount of plant growth to ensure that controlling the discharge of phosphorus would result in positive water quality improvements.

N.J.A.C. 7:9B-1.5(h) - Regulatory Mixing Zone Policies

At N.J.A.C. 7:9B-1.5(h)5i., the Department is proposing to add E. Coli to the list of indicators of pathogenic quality for which regulatory mixing zones are prohibited. Currently, regulatory mixing zones are prohibited for indicators of pathogenic quality, including fecal coliform and enterococci. Since the Department promulgated criteria for E. Coli (see 38 N.J.R. 4472, October 16, 2006), that levels shall not exceed a geometric mean of 126/100 ml or a single sample maximum of 235/100 ml. for all freshwaters, the Department is proposing to add E. Coli to the indicators of pathogenic quality for which regulatory mixing zones are prohibited.

N.J.A.C. 7:9B-1.6 - Establishment of water quality-based effluent limitations, sets forth conditions and procedures to be used when developing WQBELs, including general applicability, necessary information, and methodologies. WQBELs are effluent limitations established to assure receiving water quality meets the requirements of this chapter after the effluent is added.

N.J.A.C. 7:9B-1.6(a) and (b) explain how water quality based effluent limits are developed for Category One and Category Two waters. The Department is proposing to delete the provision at N.J.A.C. 7:9B-1.6(a) and replace it with a new provision that indicates that water quality based effluent limitations must be established for NJPDES point sources in accordance with N.J.A.C. 7:14A. The NJPDES rules at N.J.A.C. 7:14A describe the permit application requirements and procedures for developing effluent limitations based upon the SWQS including the use of mixing zones and design flows. The Department is proposing to delete N.J.A.C. 7:9B-1.6(b) and replace it with a new provision that states that for new and/or expanding NJPDES point sources, the water quality based effluent limitations shall comply with the antidegradation policies at N.J.A.C. 7:9B-1.5(d). This provision replaces the concepts incorporated at the existing N.J.A.C. 7:9B-1.6(a) and (b). After the completion of an antidegradation review, the Department must establish effluent limitations that comply with the antidegradation policy at N.J.A.C. 7:9B-1.5(d). Effluent limitations for discharges to Category One waters must ensure that the existing water quality will be maintained or improved if the existing water quality does not meet the SWQS. Effluent limitations for discharges to Category Two waters must also ensure that existing water quality is maintained unless the Department determines that additional loading is necessary to accommodate important economic or social development. The antidegradation analysis will be performed during review of an application for an amendment to the applicable Areawide Water Quality Management Plan in accordance with N.J.A.C. 7:15.

The Department is proposing to readopt N.J.A.C. 7:9B-1.6(c), which specifies water quality-based effluent limits for chlorine produced oxidants, without amendment. These provisions ensure that the intermittent use of chlorine by NJPDES permitted facilities to prevent biofouling does not impair aquatic life use.

The Department is proposing a new N.J.A.C. 7:9B-1.6(d), to allow the NJPDES program to authorize compliance schedules in NJPDES permits. Compliance schedules allow the permittee time to comply with new effluent limitations in appropriate circumstances. A compliance schedule is included in the permit when the Department determines that the facility

cannot comply with the new effluent limit immediately. The amount of time needed to comply depends on the complexity of the modifications needed as a result of the new effluent limitation. For example, if additional treatment is not required, but modifications are needed to the existing plant operations, a short compliance schedule, typically less than 12 months, might be necessary to allow the facility time to perfect their operations and ensure that the facility can comply. More complex modifications, such as additional treatment units, may require land acquisition, design and construction before the facility can comply with the new effluent limits. These types of changes may require five years or more to complete. Therefore, it is appropriate to explain the rationale for providing a compliance schedule in the fact sheet for the NJPDES permit when a compliance schedule is authorized. As a result of this proposed new rule, the Department is proposing to delete N.J.A.C. 7:9B-1.8(d) and 1.9(c), which allow the Department to modify effluent limitations for up to three years or the time remaining on the permit in Category One and Category Two waters, respectively.

N.J.A.C. 7:9B-1.7 - Waterway loadings in areawide water quality management plans, requires that any total maximum daily load, wasteload allocation, or load allocation established as an amendment to an areawide water quality management plan must be consistent with this chapter. The Department is proposing to readopt this section without change.

N.J.A.C. 7:9B-1.8 - Procedures for modifying water quality-based effluent limitations for individual dischargers to Category One waters, sets forth the procedures to be followed by an applicant requesting a modification (usually referred to as a variance) of a WQBEL for a discharge into a Category One waterbody. Category One waters are to be protected from any calculable changes to the existing water quality through New Jersey's antidegradation policies N.J.A.C. 7:9B-1.5(d).

The Department is proposing to delete N.J.A.C. 7:9B-1.8(c) and (d). N.J.A.C. 7:9B-1.8 provides procedures for modifying water quality-based effluent limitations that are specific to Category One waters. As Outstanding National Resource Waters (ONRW) waters are not considered to be part of the Category One designation, but are a separate classification to which

wastewater discharges are prohibited, the Department is proposing to delete the reference to changes in water quality on ONRW waters in N.J.A.C. 7:9B-1.8(c) as inappropriately included in this section. In addition, the Department is proposing to delete N.J.A.C. 7:9B-1.8(d) because this policy is now proposed at N.J.A.C. 7:9B-1.6(d). The proposed provision would allow the Department to authorize a compliance schedule in a NJPDES permit to provide time for the facility to meet the new effluent limitations. The provision proposed for deletion indicated that a compliance schedule could be authorized for three years or the remainder of the permit term. The Department has determined that the three year maximum period may not be sufficient in all cases. Therefore, the new provision at N.J.A.C. 7:9B-1.6(d) allows the Department to evaluate and establish an appropriate schedule within the term of the NJPDES permit. The justification for a compliance schedule will be documented in the Fact Sheet for the individual permit. Subsequently N.J.A.C. 7:9B-1.8(e) and (f) are recodified as (c) and (d) without any amendments to the text.

N.J.A.C. 7:9B-1.9 - Procedures for modifying water quality-based effluent limitations for individual dischargers to Category Two waters, sets forth the procedures to be followed by an applicant requesting a modification of a WQBEL for a discharge into a Category Two waterbody. Through New Jersey's antidegradation policies at N.J.A.C. 7:9B-1.5(d), limited lowering of water quality may be permitted in high quality Category Two waters provided certain demonstrations are successfully made to the Department. The Department is proposing to delete N.J.A.C. 7:9B-1.9(c) because this policy is now proposed at N.J.A.C. 7:9B-1.6(d). As indicated above, the new provision at N.J.A.C. 7:9B-1.6(d) allows the Department to establish a compliance schedule as necessary based on site-specific factors rather than a maximum of three years as stated in the provision proposed for deletion. The justification for a compliance schedule will be documented in the Fact Sheet for the individual permit. The Department is proposing to recodify N.J.A.C. 7:9B-1.9(d) to N.J.A.C. 7:9B-1.9(c) without any change in text.

N.J.A.C. 7:9B-1.10 - Procedures for reclassifying specific segments for less restrictive uses, sets forth specific requirements necessary to petition the Department to remove a designated use from a waterbody. The Department is proposing to readopt this section without change.

N.J.A.C. 7:9B-1.11 - Procedures for reclassifying specific segments for more restrictive uses, sets forth specific requirements for petitioning the Department to add a designated use to a waterbody. The Department is proposing to readopt this section without change.

N.J.A.C. 7:9B-1.12 - Designated uses of FW1, PL, FW2, SE1, SE2, SE3, and SC waters, lists the designated uses of the different surface water classifications of New Jersey. FW1 waters are pristine freshwaters that were set aside by the Department to represent the natural aquatic environment and its associated biota. PL waters are those waters contained within the boundaries of the Pinelands area. FW2 waters are the remaining freshwaters in the State that are not classified as FW1 or PL. SE1, SE2, and SE3 waters are saline estuarine waters and SC waters are saline coastal waters.

At N.J.A.C. 7:9B-1.12(a), (b), (c), (d), and (g), the Department is proposing to delete secondary contact recreation from the designated uses of FW1, PL, FW2, SE1, and SC waters. Criteria specified for primary contact recreation are more stringent than those specified for secondary contact recreation. Waters designated as primary contact recreation suitable for swimming will fully support secondary contact activities such as boating and fishing. Therefore, it is unnecessary to identify secondary contact recreation as a designated use in waterbodies with assigned primary contact recreation as a designated use.

N.J.A.C. 7:9B-1.13 - Designated uses of mainstem Delaware River and Delaware Bay, states that the designated uses of the Delaware River and Bay are as set forth in the Delaware River Basin Commission (DRBC) regulations (Delaware River Basin Commission, Administrative Manual - Part III, Water Quality Regulations, Article 3, October 23, 1996, as amended).

The Department is proposing to amend N.J.A.C. 7:9B-1.13(a) to replace the complete citation to the DRBC rules with the term "DRBC water quality regulations" in conjunction with the proposed definition for this term at N.J.A.C. 7:9B-1.4. The Department is additionally proposing to amend N.J.A.C. 7:9B-1.13(b), which currently indicates that designated uses for other waters under the jurisdiction of the DRBC are those specified at N.J.A.C. 7:9B-1.15(d). However, N.J.A.C. 7:9B-1.15(d) actually specifies the stream classifications of the waters of Delaware River Basin. The designated uses for other waters under the jurisdiction of the DRBC are actually specified in N.J.A.C. 7:9B-1.12. Therefore, the Department is correcting the cross-reference from N.J.A.C. 7:9B-1.15(d) to N.J.A.C. 7:9B-1.12.

N.J.A.C. 7:9B-1.14 - Surface water quality criteria, contains the surface water criteria (both narrative statements or numerical value) for waters classified as FW1, PL, FW2, SE and SC. The surface water criteria for the Delaware River and Bay are as contained in the DRBC regulations. The Department is proposing to readopt the existing water quality criteria with changes to pH, phosphorus, temperature, and cyanide which are discussed in more detail below.

N.J.A.C. 7:9B-1.14(d)3ii.: The Department is proposing to delete criteria for Petroleum Hydrocarbons at N.J.A.C. 7:9B-1.14(d)3ii. The rule currently specifies a criterion of none noticeable using the federal EPA Environmental Monitoring and Support Laboratory Method (Freon Extractable - Silca Gel adsorption Infrared Measurement). The USEPA no longer supports the use of this method as Freon is now banned and the existing provision indicated that the criteria is the criteria at N.J.A.C. 7:9B-1.14(d)3i. Since the narrative criteria is specified in N.J.A.C. 7:9B-1.14(d)3i, the Department is proposing to delete the subparagraph at N.J.A.C. 7:9B-1.14(d)3ii. As a result, the Department is proposing to delete the "; and" from the end of paragraph at N.J.A.C. 7:9B-1.14(d)3i and replacing it with a period.

N.J.A.C. 7:9B-1.14(d)4 pH criteria: The Department is proposing to revise pH criteria contained at N.J.A.C. 7:9B-1.14(d)4. Currently the Department has two surface-water quality criteria for pH, a criterion range of 3.5 to 5.5 applies to the Pinelands waters and the criterion

range of 6.5 to 8.5 applies for the rest of the freshwaters of the State. The Department reviewed the pH impairments identified in the New Jersey's 2006 Integrated Water Quality Monitoring and Assessment Report and determined that the existing criteria were inappropriate for waterbodies located in the Coastal Plain. Most of the exceedence of the pH criteria occurred just downstream of Pineland Area boundary where FW2 and PL classifications meet. Waterbodies were evaluated to determine if there were any possible anthropogenic sources for the observed lower pH levels but no definitive sources could be found. Anthropogenic sources in the area (agriculture, development, industry) all suggest that, if anything, pH levels, should be higher rather than lower. Therefore, existing conditions may be closer to natural. For these reasons, it was deemed appropriate to specifically evaluate pH levels and natural characteristics in the coastal plain to determine if an additional pH criterion is necessary.

The Department determined that the lower pH levels (<6.5) are not violations, but are natural levels influenced by similar conditions to those that exist in the Pinelands Protection and Preservation Area. The Pinelands Area is a political boundary rather than ecological boundary. Conditions similar to Pinelands may exist well beyond the protected Pinelands area, thus influencing pH levels in surface waters in areas of the coastal plain.

The current surface water pH criteria of 6.5 - 8.5 for the coastal plain, outside of the Pinelands Protection and Preservation Area, is not representative of the levels observed in this area. Surface water pH levels in the coastal plain are similar to those which exist in the Pinelands. The reason for this similarity in pH levels appears to be similar soil types, which allow surface waters to retain their naturally low pH levels. The similarity is not surprising since previous studies have shown that other characteristics (flora and fauna) indicative of the Pinelands exist in the same areas of the coastal plain beyond the Pinelands borders (Harshberger, John W., 1916, Vegetation of the New Jersey Pine Barrens; An Ecological Investigation. Philadelphia, PA. Christopher Sower Co., 329 pp.; McCormick, J. and Andresen, J.W. 1963, The Role of Pinus virginiana in the Vegetation of Southern New Jersey. New Jersey Nature News

18, 27-38; and Forman, Richard T.T. 1979, ed. New Jersey Pine Barrens: Ecosystem and Landscape. New York, NY. Academic Press Inc.).

Since surface water pH levels are locally influenced by soil type and soils do not follow a clear and concise pattern, the Department is proposing a criterion with a wider pH range of 4.5 - 7.5 for the coastal plain FW2 waters outside of the Pinelands boundary. In order to differentiate these waters, changes are proposed to stream classification tables at N.J.A.C. 7:9B-1.15 to split the Delaware and Raritan drainage basins into upper and lower basins. The new proposed pH criteria of 4.5 – 7.5 will apply to freshwaters outside the boundaries of Pinelands Area in Atlantic, lower Delaware, and lower Raritan drainage waters.

N.J.A.C. 7:9B-1.14(d)5 Phosphorus: The Department is proposing to add narrative criterion based upon the Nutrient Enhancement Plan (discussed above) as a separate provision at N.J.A.C. 7:9B-1.14(d)5i. The proposed narrative criteria provides that concentrations that render the waters unsuitable for the existing or designated uses shall not be allowed. If the Department determines that existing or designated uses are impaired, criteria in N.J.A.C. 7:9B-1.14(d)5ii or iii apply; unless watershed-specific translators are established pursuant to N.J.A.C. 7:9B-1.5(g)3. The criteria for lakes and streams is proposed to be recodified as N.J.A.C. 7:9B-1.14(d)5ii and iii, respectively. The Department is proposing to delete the reference to watershed or site-specific criteria developed pursuant to N.J.A.C. 7:9B-1.5(g)3 as this concept is incorporated in the new provision at N.J.A.C. 7:9B-1.14(d)5i.

The Department is proposing to delete the reference to limiting nutrient at N.J.A.C. 7:9B-1.14(d)5ii. The limiting nutrient provision is no longer necessary with the new requirement to evaluate compliance with the narrative criteria. Plant growth in freshwaters (streams, rivers, lakes, ponds and reservoirs) is expected to be limited by the amount of phosphorus available. This evaluation is no longer necessary as the Department is now proposing to evaluate narrative criteria. If the narrative criteria is met and the waters are not rendered unsuitable, no further action is needed. Additionally, the Department is proposing to clarify the criterion at N.J.A.C.

7:9B-1.14(d)5iii. The existing numeric criteria at N.J.A.C. 7:9B-1.14(d)5iii was based on the USEPA recommendation of 0.1 mg/L of total phosphorus was developed for flowing freshwater streams and not waters that are tidally influenced. As indicated in the Nutrient Criteria Enhancement Plan, the Department intends to develop appropriate criteria for tidal waters.

N.J.A.C. 7:9B-1.14(d)11 Temperature: The Department is proposing to replace the existing temperature criteria for trout production (TP), trout maintenance (TM), and non-trout (NT) waters for small mouth bass and yellow perch, and all other waters based on summer seasonal average. The Department determined that the summer seasonal average criterion may not sufficiently protect existing and designated uses in these waters. As indicated in the adoption of amendments to the SWQS in 2006 (see 38 N.J.R. 4449(a)), the Department established criteria at that time which would protect against sublethal effects. These criteria lacked provisions to identify waterbodies with stream temperatures that are lethal to fish. It is imperative that temperature criteria account not only for thermal tolerances of fish that occur in these waters, but also normal patterns of diurnal and seasonal fluctuation, in order to protect existing and designated uses. The Department's Division of Fish and Wildlife reviewed and considered scientific literature, guidelines, water quality standards from other jurisdictions, and general conditions prevailing in New Jersey surface waters in developing recommendations for temperature criteria. In addition, the Division of Fish and Wildlife evaluated instantaneous temperatures recorded by the Division of Fish and Wildlife over a 39 year period. This data provided provide a useful data set (299 records) to compare summer thermal conditions of FW2-TP streams located in New Jersey with scientific literature on thermal tolerances and preferences of trout. The instantaneous temperatures recorded probably do not represent either the daily thermal maxima or minima. This temperature data provides useful insight regarding the range of temperatures that reproducing trout populations encounter in New Jersey streams during the summer months, and was used to develop temperature criteria for TP streams. The Department now proposing an acute criterion to protect fish against lethality and a chronic criterion to protect fish against the sub-lethal effects of high summer temperatures at N.J.A.C. 7:9B-1.14(d)11 for FW2-TP, FW2-TM, and FW2-NT water.

FW2-TP Waters: Trout are valuable indicators of healthy aquatic ecosystems, requiring high water quality, cold temperatures, and good habitat for survival and successful reproduction. Of the four species of trout that currently reproduce in New Jersey's freshwaters, only the brook trout is native. Unfortunately, brook trout now survive in less than half their original range in New Jersey, having once occupied nearly 200 of the State's 900 subwatersheds, according to the Eastern Brook Trout Joint Venture (EBTJV) 2006 assessment report, *Eastern Brook Trout: Status and Threats* (available at http://www.easternbrooktrout.org). Brook trout have been extirpated from 96 New Jersey subwatersheds, and none of the remaining subwatersheds where brook trout are present are considered "intact."

Urbanization and a variety of impacts associated with industry, roads, and dams have played a major role in the loss of brook trout populations. The top five threats to brook trout populations in New Jersey are sedimentation from roads, urbanization, high water temperature, stream fragmentation, and non-native fish. Since 1968, when the Division of Fish and Wildlife began methodically conducting stream surveys during the summer for classification purposes, reproducing brook trout populations have been confirmed in 66% (121) of the 182 streams surveyed and classified as FW2-TP in the SWQS. To prevent further loss of brook trout populations due to elevated water temperature, the Department's Division of Fish and Wildlife believes temperature criteria for all FW2-TP streams should be based on the temperature requirements for the native brook trout.

The optimal temperature range for feeding, growth and reproduction for brook trout is 11 to 16°C. The lethal temperature for brook trout is 23.9°C, while brown and rainbow trout (which also reproduce in New Jersey streams) have slightly higher thermal tolerances. The Department is proposing an acute criterion for FW2-TP waters as a daily maximum temperature not to exceed 22°C to prevent lethality to brook trout. This criterion is about 2 degrees less than the temperature lethal to brook trout (23.9°C). The Department is also proposing a chronic criterion for FW2-TP waters as a seven-day rolling average of the daily maximum temperatures to protect against sublethal effect of 19°C. Although stream temperatures may exceed the

optimum temperature range for brook trout during the summer, these criteria are expected to protect brook trout and other trout related species from lethal and sublethal temperature effects. The proposed criteria will be used as the enforceable criteria unless changes are due to natural conditions.

FW2-TM Waters: New Jersey's FW2-TM waters support a variety of coldwater and warmwater fish having variable thermal preferences and tolerances, which often overlap. FW2-TM waters are capable of supporting stocked hatchery-reared trout year round. It is believed that many of these streams at one time supported reproducing populations of native brook trout, however, today the recreational trout fisheries in these waters depend upon maintenance stockings of hatchery-reared trout. Historical records show summer water temperatures of many FW2-TM streams approach and exceed the thermal tolerances for all three species of trout. When summer water temperatures approach levels that are stressful for trout, these coldwater fish seek areas of thermal refuge (influx of cold water from springs, groundwater upwelling, and tributaries). Riparian vegetation that shades the water surface also plays a critical role in maintaining cold summer water temperatures. Unfortunately, the ability of near-stream vegetation to shade the stream and maintain cool temperatures decreases on wide FW2-TM streams.

In developing the proposed criteria for FW2-TM waters, the Department recognized that variable conditions prevail in these waters and thermal preferences and tolerances for all three trout species vary widely as well. However, because trout maintenance waters are designated based on the occurrence of adult trout and other trout associated species, the brown trout was selected as the target species for protection. The optimal temperature range for feeding, growth and reproduction of brown trout, is 12 to 19°C. Temperatures above 27.2°C are lethal to brown trout. The Department is proposing an acute criterion for FW2-TM streams as a daily maximum temperature not to exceed 25°C, which is approximately two degrees less than the lethal temperature for brown trout. The Department is also proposing a chronic criterion for FW2-TM waters as a rolling seven-day rolling average of the daily maximum temperature at 23°C. Although stream temperatures may exceed the optimum temperature range for brown trout

waters during the summer, these criteria are expected to protect brown trout and other trout associated species from lethal and sublethal temperature effects. The Department believes these criteria provide an appropriate level of protection for stocked trout and trout associated species during the most stressful periods during the summer and will support adult trout populations year round. These criteria will be used as the enforceable criteria unless changes are due to natural conditions.

FW2-NT Waters: New Jersey's FW2-NT waters are inhabited by a wide variety of warmwater game fish (bass, pickerel, and catfish), panfish (sunfish, crappie, and perch), and a variety of other fish (minnows, darters, and suckers). These fish have varying thermal tolerances and preferences. Native warmwater fishes generally have optimal temperature ranges for feeding, growth and reproduction from 27°C to 30°C, and lethal temperatures from 31°C to 36°C.

The Department is proposing a daily maximum temperature not to exceed 31°C as an acute criterion for all FW2-NT waters. The Department is also proposing a chronic criterion as a rolling seven-day average of the daily maximum temperature of 28°C. Although stream temperatures may exceed the optimum temperature range for FW2-NT waters during the summer, these criteria are expected to protect the variety of fish found in FW2-NT waters from lethal and sublethal temperature effects. The Department believes that these criteria provide an appropriate level of protection for recreationally important fish species and most other fish species that are not dependent upon cold and cool water temperatures for survival. However, considering the wide variety of fishery resources which exist within the FW2-NT waters, criteria for these waters may require further refinement in the future. The Department is also proposing to delete criteria applicable to smallmouth bass and yellow perch, at N.J.A.C. 7:9B-1.14(d)11ii, because the proposed criteria for FW2-NT waters is protective of these species. These proposed criteria will be used as the enforceable criteria unless changes are due to natural conditions.

The Department determined that, where continuous monitoring is available, a one-hour average will be used to evaluate the daily maximum temperature criterion. Where continuous monitoring is not available, a single sample maximum value will be used to evaluate the daily

maximum temperature criterion. The Integrated Water Quality Monitoring and Assessment Methods Document provides additional detail on how the Department will evaluate whether the temperature criteria is exceeded. (See www.nj.gov/dep/wms/bwqsa)

Summary of Existing and Proposed Temperature Criteria

Existing Crieria	Stream Classification	Proposed Criteria
20°C (68°F) Summer seasonal average	FW2-TP	Daily Maximum of 22°C (71.6°F) 7 day average of daily max of 19°C (66.2°F)
	FW2-TM	Daily Maximum of 25°C (77°F) 7 day average of daily max of 23°C (71.6°F)
27.8°C (82°F) Summer seasonal average (for small mouth bass & yellow perch waters)	FW2-NT	Daily Maximum of 31°C (87.8°F) 7 day average of daily max of 28°C (82.4°F)
30°C (86°F) Summer seasonal average (for all other waters)		

N.J.A.C. 7:9B-1.14(f)7 Cyanide: The Department is proposing to revise existing surface water quality saltwater criteria of 1.0 µg/L for cyanide applicable to both acute and chronic criteria. These criteria are based on ambient water quality criteria issued in 1984 by the USEPA in *Ambient Water Quality Criteria for Cyanide-1984* (EPA 440/5-84-028) found at http://www.epa.gov/waterscience/criteria/. Although new toxicity studies are available the USEPA has not revised these values since then. Great Lakes Environmental Center (GLEC), on behalf of Passaic Valley Sewerage Commission (PVSC), gathered additional toxicity studies to update the existing saltwater cyanide criteria. The proposed criteria were recalculated by GLEC using existing and additional toxicity studies as outlined in the document, *Proposed Revision of the New Jersey Water Quality Standards for Cyanide in Saltwater, May 16, 2007.* A copy of this document can be found at www.state.nj.us/dep/wms/bwqsa/. The Department used all the data available in this document to update the saltwater criteria for cyanide as follows:

Acute Criterion: GLEC gathered additional toxicity studies and recalculated the proposed acute and chronic saltwater criterion of 2.7 µg/L for cyanide (see Table 1). Acceptable acute values for saltwater species, including those from the 1984 Ambient Water Quality Criteria for Cyanide document, as well as new data (**boldfaced)** are presented in Table 1 below. Ranked genus mean acute values for cyanide to saltwater species, including those from the 1984 Ambient Water Quality Criteria for Cyanide document, as well as new data (**boldfaced)** are presented in Table 2 below.

Table 1. Acute Toxicity Data for Cyanide to Saltwater Species

Species	Method	LC50/EC50 µg/L[A]	SMAV	GMAV	Reference
Calanoid Copepod, *Acartia Clausi*	S, U	**17.0**[B]	17.0	17	Lussier et al., 1985
Opossum shrimp, *Americamysis bahia*	S, U	93.0[C]			Gentile, 1980
Opossum shrimp, *Americamysis bahia*	F, M	113.0	113.0		Lussier et al., manuscript
Shrimp, *Americamysis bigolowi*	S, U	124.0	124.0	118.4	Gentile, 1980
Amphipod, *Ampelisca abdita*	S, U	1,220			Scott et al., manuscript
Amphipod, *Ampelisca abdita*	S, U	1,150			Scott et al., manuscript
Amphipod, *Ampelisca abdita*	S, U	704.0	995.9	996	Scott et al., manuscript
Graceful Rock crab, *Cancer gracilis*	R, M	**153**			Brix et al., 2000
Graceful Rock crab, *Cancer gracilis*	R, M	**135**	**143.7**		Brix et al., 2000
Rock crab, *Cancer irrotatus*	F, M	5.7			Johns and Gentile, 1981
Rock crab, *Cancer irrotatus*	F, M	4.2			Johns and Gentile, 1981
Rock crab, *Cancer irrotatus*	F, M	**70.9**			Gensemer et al., 2006
Rock crab, *Cancer irrotatus*	F, M	**44.2**	**16.6**		Gensemer et al., 2006
Dungeness crab, *Cancer magister*	R, M	**51.0**			Brix et al., 2000

Dungeness crab, *Cancer magister*	R, M	**92.0**	**68.5**		Brix et al. , 2000
Pigmy rock crab, *Cancer oregonensis*	R, M	**111.0**			Brix et al. , 2000
Pigmy rock crab, *Cancer oregonensis*	R, M	**154.0**	**130.7**		Brix et al. , 2000
Red crab, *Cancer productus*	R, M	**219.0**			Brix et al. , 2000
Red crab, *Cancer productus*	R, M	**107.0**	**153.1**	**79.9**	Brix et al. , 2000
Slipper limpet, *Crepidula fornicata*	S, U	>10,000	>10,000		Gardner and Nelson, 1981
Sheepshead minnow, *Cyprinodon variegatus*	F, M	300.0	300.0	300	Schimmel et al., 1981
Atlantic silverside, *Menidia menidia*	F, U	59.3	59.3	59.3	Gardner and Berry, 1981
Winter flounder, *Pseudopleuronectes americanus*	S, U	372.0	372.0	372	Cardin, 1980

A Results are expressed as concentrations of free cyanide (CN).

B A value of 30 μg/L from Gentile (1980) was originally reported and used for this test in the 1985 AWQC document for cyanide (US EPA 1985), but the point estimate did not account for control mortality. The revised value reported here (17 μg/L) is based on a memorandum addressed to John Gentile from Lussier and collaborators (see Ecotox reference #14599) from their re-assessment of this test and data.

D Value was not used to derive the cyanide criteria.

S = static; F = flow-through; M = measured; R = renewed; U = unmeasured

Table 2. Ranked Genus Mean Acute Values for Cyanide to Saltwater Species

Rank	Genus Mean Acute Value	Species	Species Mean Acute Value
8	>10,000	Slipper limpet, *Crepidula fornicata*	>10,000
7	996	Amphipod, *Ampelisca abdita*	995.9
6	372	Winter flounder, *Pseudopleuronectes americanus*	372
5	300	Sheepshead minnow, *Cyprinodon variegatus*	300
		Opossum shrimp, *Americamysis bahia*	113
4	118	Shrimp, *Americamysis bigolowi*	124

		Graceful Rock crab, *Cancer gracilis*	
		Graceful Rock crab, *Cancer gracilis*	**143.7**
		Rock crab, *Cancer irrotatus*	
		Rock crab, *Cancer irrotatus*	
		Rock crab, *Cancer irrotatus*	
		Rock crab, *Cancer irrotatus*	**16.6**
		Dungeness crab, *Cancer magister*	
		Dungeness crab, *Cancer magister*	**68.5**
		Pigmy rock crab, *Cancer oregonensis*	
		Pigmy rock crab, *Cancer oregonensis*	**130.7**
		Red crab, *Cancer productus*	
	80	Red crab, *Cancer productus*	**153.1**
3	59	Atlantic silverside, *Menidia menidia*	59
2	17	Calanoid Copepod, *Acartia Clausi*	17

Final Acute Value = 5.45 µg/L

Criterion Maximum Concentration = 5.45/2 = 2.7 µg/L

Criterion Continuous Concentration = 2.7 µg/L

Chronic Criterion: No additional chronic values were provided for saltwater species so that a chronic water quality criterion could be derived. The Department is proposing a chronic criterion equal to the acute criterion as recommended in the USEPA 304(a) 1984 Ambient Water Quality Criteria for Cyanide document (EPA 440/5-84-028).

N.J.A.C. 7:9B-1.14(g) Site-specific criteria

N.J.A.C. 7:9B-1.14(g) specifies the site-specific surface water quality criteria applicable to specific waterbodies that supersede the State-wide criteria listed at N.J.A.C. 7:9B-1.14(d) through (f).

The Department is proposing to amend N.J.A.C. 7:9B-1.14(g) to indicate that site-specific criteria to this section will be added when a site-specific criterion is developed through a Total Maximum Daily Load (TMDL) adopted as an amendment to the Statewide Water Quality Management Plan or the applicable Areawide Water Quality Management Plan in accordance with N.J.A.C. 7:15-6.4. The Department will incorporated such site-specific criterion at N.J.A.C. 7:9B-1.14(f)7 through a notice of administrative change in the New Jersey Register.

Total Maximum Daily Loads (TMDLs) are required, under Section 303(d) of the Federal Clean Water Act, to be developed for waterbodies that cannot meet surface water quality standards after the implementation of technology-based effluent limitations. TMDLs represent the assimilative or carrying capacity of the receiving water taking into consideration point and nonpoint sources of pollution, natural background, and surface water withdrawals. A TMDL is developed as a mechanism to allocate loads to the point and nonpoint sources of a specific pollutant as necessary to meet surface water quality standards. TMDLs are the appropriate venue to evaluate waterbody specific goals, evaluate the environmental and economic impacts of attaining a revised criteria and therefore are the appropriate venue to develop site-specific criteria. The Department is proposing at N.J.A.C. 7:9B-1.14(g) to incorporate site-specific criteria, when these criteria are developed through a Total Maximum Daily Load (TMDL) and adopted as an amendment to the Statewide Water Quality Management Plan or the applicable Areawide Water Quality Management Plan in accordance with N.J.A.C. 7:15-6.4.

Site-specific criteria may be developed to tailor the water quality criterion to the waterbody-specific factors. Interested parties may submit information necessary to demonstrate that a site-specific criterion is appropriate. The existing State-wide aquatic life criterion can be recalculated based on the species present in the specific waterbody. The USEPA 304(a) criteria

for copper utilizes a complex model (Biotic Ligand Model (BLM)) based on site-specific water quality conditions. However, the BLM method is data intensive. Interested parties could collect the water quality data necessary to develop a site-specific copper freshwater criteria utilizing the USEPA recommended Biotic Ligand Model. Upon completion, the Department will review and revise through formal rulemaking a new site-specific copper criteria, where applicable. More information on BLM copper criteria is available in the USEPA "*Biotic Ligand Model, User's Guide and Reference Manual*".

At N.J.A.C. 7:9B-1.14(h), the Department is proposing to delete the full citation to the DRBC rules and replace it with the term "DRBC Water Quality Regulations" reflecting the proposed definition of that term at N.J.A.C. 7:9B-1.4.

N.J.A.C. 7:9B-1.15 - Surface water classifications for the waters of the State of New Jersey

Trout classifications

N.J.A.C. 7:9B-1.15 contains the surface water classifications and antidegradation designations for the waters of the State. In addition to several administrative changes, summarized further below, the Department is proposing to reclassify four stream segments based on trout sampling data. The waterbodies for which trout-related reclassifications are being proposed are listed in Table 3 below.

Stream sampling (fish survey) data are used by the Department to determine whether a waterway should be classified to protect the trout production (TP) or trout maintenance (TM) uses. When waterbodies are surveyed and found to have naturally reproduced trout in their first year of life (young of the year or YOY), they are classified as trout production waters or FW2-TP. When a waterbody supports adult trout and YOY trout are absent, the classification of the stream as trout maintenance (FW2-TM) or nontrout (FW2-NT) depends upon the stream's total fish population.

A classification system was developed which utilizes a table of Incidence of Occurrence (I.O.), of other fish species associated with trout, based on data from a statewide survey of freshwater streams. A value of 100% was assigned to each trout species found during the survey. Other nontrout species were assigned an I.O. value based on the percentage of the time that the individual species was found in the presence of trout. A figure of 20% was selected by the Department's Bureau of Freshwater Fisheries as the minimum occurrence with trout that would classify a species as being trout "associated." This 20% figure was also selected as the cutoff figure for determining whether a stream should be classified as FW2-TM. The individual percentage figures for an individual stream are added and averaged, with the resulting value serving as the basis for the classification. If the average I.O. value is greater than 20%, the stream segment would be classified as trout maintenance, if the average I.O. value is less than 20%, the stream segment would be classified as nontrout.

On the basis of this analysis, the Department is proposing to upgrade the following waterbody segments:

A tributary of Beaver Brook, East of Manunka Chunk, which is currently classified as FW2-NT by default. This tributary supports trout maintenance use designation based on the stream sampling data. Therefore, the Department is proposing FW2-TM to the tributary of Beaver Brook, East of Manunka Chunk at proposed N.J.A.C. 7:9B-1.15(d).

The Musconetcong River tributary, Scout Run at Warren Glen currently classified as FW2-TM(C1) at N.J.A.C. 7:9B-1.15(d). The trout maintenance classification of this tributary was an assumed classification based on the mainstem of Musconetcong River. Based on the stream sampling data it is now confirmed to be non-trout. Accordingly, the Department is proposing to classify the Musconetcong River tributary, Scout Run at Warren Glen as FW2-NT(C1) at N.J.A.C. 7:9B-1.15(d).

Macopin River tributary, Mathews Brook currently classified as FW2-TP as a default. Based on the stream sampling data, it is now confirmed that this tributary is appropriately classified as non-trout. Accordingly, the Department is proposing an FW2-NT classification to Mathews Brook at proposed N.J.A.C. 7:9B-1.15(f).

Pequannock River tributary at Suntan Lakes is currently classified as FW2-TP as a default. Based on the stream sampling data, it is now confirmed that this tributary supports trout production. Therefore, the Department is proposing that this segment be classified as FW2-TP and receive a Category One antidegradation designation and listed as FW2-TP(C1) at proposed N.J.A.C. 7:9B-1.15(f).

Table 3. PROPOSED CHANGES TO THE STREAM CLASSIFICATIONS AS A RESULT OF STREAM SURVEYS CONDUCTED IN 2006

Waterbody	Current classification[1]	Proposed classification	Young of the year (trout species)	I.O.[2]
Upper Delaware River Basin (N.J.A.C. 7:9B-1.15(d))				
Beaver Brook trib. (E. of Manunka Chunk) - Entire length, including all tributaries	[FW2-NT]	FW2-TM	N/A	31.4
Musconetcong River trib. Scout Run (Warren Glen) - Entire length, including all tributaries	[FW2-TM](C1)	FW2-NT(C1)	N/A	19.3
Passaic, Hackensack, and New York Harbor Complex Basin				
Macopin River trib., Mathews Brook (Echo Lake) - Entire length, including all tributaries	[FW2-TP]	FW2-NT	N/A	13.7
Pequannock River trib. (Suntan Lakes) - Entire length, including all tributaries	[FW2-TP]	FW2-TP(C1)	Brown trout	N/A

1. Brackets indicate that the waterbody was not previously identified, although the classification was determined as a default classification.
2. Incidence of Occurrence (values more than 20 are indicative of a TM classification and less than 20 are indicative of NT classification).

Other Administrative Changes:

At N.J.A.C. 7:9B-1.15 the Department is proposing editorial changes and amendments to reflect the proposed recodifications. At N.J.A.C. 7:9B-1.15 (a), the Department is proposing new language to clarify that the waters of the mainstem Delaware River are under the jurisdiction of the DRBC and are contained in the DRBC Water Quality Regulations.

The Department is proposing a new range of pH criterion, as discussed above in the summary of proposed changes to N.J.A.C. 7:9B-1.14. The proposed new range of pH criteria would be applicable to FW2-NT waters of the Atlantic, lower Delaware and lower Raritan drainage basins. To accommodate this proposed pH criterion, the Department is proposing to split the existing Delaware River basin (N.J.A.C. 7:9B-1.15(d)) and the Raritan River basin (N.J.A.C. 7:9B-1.15(f)) into upper and lower basins. As a result, the Department is proposing nine stream classification tables instead of the existing seven classification tables. The Department is proposing to delete the table numbers listed from 1 through 7 for each classification table and codify them as N.J.A.C. 7:9B-1.15(d) through (k) as listed below.

N.J.A.C. 7:9B-1.15(c) The surface water classifications for waters of the Atlantic Coastal Basin.

N.J.A.C. 7:9B-1.15(d) The surface water classifications for waters of the Upper Delaware River Basin.

N.J.A.C. 7:9B-1.15(e) The surface water classifications for waters of the Lower Delaware River Basin.

N.J.A.C. 7:9B-1.15(f) The surface water classifications for waters of the Passaic, Hackensack and New York Harbor Complex Basin.

N.J.A.C. 7:9B-1.15(g) The surface water classifications for waters of the Upper Raritan River and Raritan Bay Basin.

N.J.A.C. 7:9B-1.15(h) The surface water classifications for waters of the Lower Raritan River and Raritan Bay Basin.

N.J.A.C. 7:9B-1.15(i) The surface water classifications for waters of the Wallkill River Basin.

N.J.A.C. 7:9B-1.15(j) FW1 waters listed by tract within basins.

N.J.A.C. 7:9B-1.15(k) The following are the Outstanding National Resource Waters of the State.

N.J.A.C. 7:9B-1.15(c)

The Department is proposing to delete the table number as discussed above. As a result of the elimination of table titles, N.J.A.C. 7:9B-1.15(c) is proposed to be amended to indicate that this subsection contains the surface water classifications for waters of the Atlantic Coastal Basin.

FW2/SE

Waters in the classification tables for which the Department had insufficient information to determine if they should be classified as either freshwaters (FW) or saline (SE) are classified as FW2/SE. The Department is proposing to modify the current FW2/SE steam classifications for several waterbodies based on the evaluation of the information described below.

Waters that are classified for shellfish harvest pursuant to the Shellfish Growing Water Classifications, N.J.A.C. 7:12, must have a salinity concentration greater than 4 parts per thousand (ppt) to support surf clams, which have the lowest salinity threshold. As defined in the SWQS, saline waters are those with salinities greater than 3.5 ppt. Therefore, waters classified for shellfish harvest should be classified as SE. Therefore, any location authorized for shellfish harvest currently designated FW2/SE in N.J.A.C. 7:9B-1.14 is proposed to be reclassified to SE.

The Department analyzed several factors to establish whether waters should be reclassified as freshwaters and is proposing to change the classification of several waters from FW2/SE to FW2 based upon this analysis. Factors the Department considered included the placement of biological monitoring stations for freshwater streams and/or the location of a dam in the waterbody. The presence of these features indicate that the waterbody upstream of that location is freshwater. The stream classification for portions of these waterbodies upstream of the monitoring station or dam is proposed for upgrade from FW2/SE to FW2.

The Department is proposing to end/begin FW2/SE classifications at road crossings, the boundary of the Pinelands Protection and Preservation Area or open space lands, or the confluence of a tributary for easy identification. If the Department is unable to determine where to end the FW2 classification and where to begin the SE classification, the FW2/SE classification will remain until the Department confirms the appropriate stream classification. The proposed changes are described below. The Department is additionally proposing to amend listings in this subsection to make administrative changes and corrections, also described further below.

Absecon Creek: The Department is proposing a FW2-NT stream classification from the boundary of the Pinelands Protection and Preservation Area to Mill Road Dam, based on the location of the dam. The Department is proposing to classify the stream segment from Mill Road Dam to Absecon Bay as SE1. Portions of Absecon Creek designated as PL will remain unchanged. The tributaries that flow into the SE1 portion of Absecon Creek remain as FW2-NT/SE1.

Bog Branch Creek: The existing listing indicates that the entire Bog Branch Creek is SE1(C1). However, a portion of the Bog Branch Creek is within the Pinelands Protection and Preservation Area boundary. The Department is proposing to amend the listing to identify that the PL classification is applicable to the portion of Bog Branch Creek that is within the Pinelands Protection and Preservation Area. As a result, the Department is proposing to add, 'except portion within the Pinelands Protection and Preservation Area' to clarify that only the portion of Bog Branch Creek outside the Pinelands boundary is SE1(C1).

Brigantine: The Department is proposing to amend the listing of Brigantine which indicates that all waters within the boundaries of Edwin B. Forsythe National Wildlife Refuge are FW2-NT/SE1(C1). The Category One waters of the Edwin B. Forsythe National Wildlife Refuge are not listed as individual streams, but are instead listed under one entry of Brigantine. The Department is proposing to amend the classifications to identify the fresh and saline portions of Cedar Creek and Cedar Run. To recognize the separate listings for portions of these two

waterbodies in the Edwin B. Forsythe Wildlife Refuge, the Department is proposing to amend the Brigantine listing by adding "except portions of Cedar Creek and Cedar Run" at the end of the Brigantine listing. The changes to Cedar Creek and Cedar Run are described below.

Cedar Creek: The Department is proposing to reclassify the current FW2/SE stream classifications of Cedar Creek to FW2 and SE1 as appropriate. The Department is proposing an FW2-NT stream classification from the Garden State Parkway to US Highway 9, based on the location of an AMNET station. The Department is proposing to retain the stream classification of Cedar Creek from US Highway 9 to the Barnegat Bay as FW2-NT/SE1. The portion of Cedar Creek that is within the Edwin B. Forsythe National Wildlife Refuge is currently designated as FW2-NT/SE1(C1) under the listing of Brigantine. In addition, the segments proposed to be classified as FW2-NT located within the Edwin B. Forsythe National Wildlife Refuge will retain the Category One designation. Portions of Cedar Creek designated as PL and FW1 will remain unchanged.

Cedar Run: The Department is proposing to reclassify the current FW2/SE stream classifications of Cedar Run to FW2-NT or SE1 as appropriate. The Department is proposing an FW2-NT stream classification from the Garden State Parkway to US Highway 9, based on the location of an AMNET station. The Department is proposing to retain the stream classification of Cedar Run from US Highway 9 to the Barnegat National Wildlife Refuge as FW2-NT/SE1. The Category One waters of the Edwin B. Forsythe National Wildlife Refuge are not listed as individual streams but are instead listed under one entry of Brigantine as described above. The Department is proposing to classify the Category One portion of Cedar Run within the Edwin B. Forsythe National Wildlife Refuge as FW2-NT(C1) upstream of US Highway 9 and as SE1(C1) downstream of US Highway 9 based on the proposed fresh or saline classification of Cedar Run. Portions of Cedar Run designated as PL will remain unchanged.

Great Egg Harbor River: The Department is proposing SE1 stream classification from the boundaries of Pinelands Protection and Preservation Area at Route 40 to Great Egg Harbor based

on the presence of shellfish classification areas. Portions of Great Egg Harbor River within MacNamara Wildlife Management Area are proposed to be classified as SE1(C1). Portions designated as FW1 will remain unchanged. The tributaries that flow into the SE1 portion of Great Egg Harbor River remain as FW2-NT/SE1.

Miry Run: The Department is proposing a new listing for Miry Run which is a tributary of Great Egg Harbor River. The Department is proposing to classify the stream segment with the Pinelands boundaries as PL under the listing of Thelma. Based on the location of an AMNET station, the Department is proposing an FW2-NT stream classification from the boundaries of the Pinelands Protection and Preservation Area to Thelma Avenue under the listing of Catowba. The Department is also proposing to classify the stream segment from Thelma Avenue to Great Egg Harbor River as FW2-NT/SE1 also under the listing of Catowba because it was not possible to determine if it is fresh or saline.

Toms River: The Department is proposing to specify that the FW2-NT(C1) stream classification applicable to the Cassville portion of the main stem of the Toms River is applicable to all tributaries listed under Cassville. This was inadvertently omitted form the current listing.

Wrangel Brook: The Department is proposing to reclassify the current FW2-NT/SE1 stream classifications of Wrangle Brook to FW2-NT or SE1 as appropriate. The Department is proposing an FW2-NT stream classification from Green Branch to the confluence with Davenport Branch based on the location of an AMNET station. The Department is proposing to retain the stream classification from Davenport Branch to Toms River as FW2-NT/SE1. Portions that are designated as Category One will remain unchanged.

N.J.A.C. 7:9B-1.15(d)

N.J.A.C. 7:9B-1.15(d) contains surface water classifications for waters in the Delaware River Basin. The Department is proposing to delete the table number and split the table into upper and lower Delaware River basins to accommodate the proposed pH criteria (see discussion

on pH criteria at N.J.A.C. 7:9B-1.14(d)4 above). The surface water classifications for waters of the Upper Delaware River Basin above Trenton are proposed to be listed at N.J.A.C. 7:9B-1.15(d). The surface water classifications for waters of the Lower Delaware River Basin below Trenton are proposed for deletion from N.J.A.C. 7:9B-1.15(d) and recodification to N.J.A.C. 7:"9B-1.15(e). In addition to these changes and proposed upgrades to Beaver Brook and Musconetcong River tributary classifications to reflect the results of trout sampling, as discussed above, the Department is proposing to amend listings in this subsection to make administrative changes and corrections, described below.

Mountain Lake Brook: The Department is proposing to correct the name from Mountain Lake Creek to Mountain Lake Brook to match with the United States Geological Survey (USGS) name.

Wickecheoke Creek: The Department is proposing to specify the Category One designation to the tributaries of the Wickecheoke Creek. The designation of "all tributaries" was adopted by the Department on August 2, 2004 but was omitted from the rule text. (See 36 N.J.R. 3581). This clarification is made both to the Locktown and Stockton portions of the creek.

N.J.A.C. 7:9B-1.15(e)

As indicated in the summary of N.J.A.C. 7:9B-1.15(d) above, the Department is proposing to recodify the stream classification listings of waters in the Delaware River Basin below Trenton to N.J.A.C. 7:9B-1.15(e) and designate this subsection as the listing of classifications for the lower Delaware River Basin.

The Department is proposing to modify the current FW2-NT/SE1 steam classifications to FW2-NT and SE1 as appropriate. The proposed changes are described below.

Alloway Creek: The entire Alloway Creek is currently classified as FW2-NT/SE1. The Department is proposing an FW2-NT stream classification from source to Greenwich street including Alloway Lake based on the location of an AMNET station at Greenwich Street and the

location of shellfish classification areas. The Department is proposing the stream segment from Greenwich Street to Delaware Bay as SE1. The tributaries, named and unnamed, that flow into the SE1 portion of Alloway Creek remain as FW2-NT/SE1.

Cohansey River: The Department is proposing to reclassify the current FW2-NT/SE1 stream classifications of Cohansey River as appropriate. The Department is proposing an FW2-NT stream classification from source to Park Drive, including all tributaries and Sunset Lake based upon the dam at Sunset Lake. The Department is proposing FW2-NT/SE1 for the segment below Sunset Lake from Park Drive to the Railroad crossing. From the Railroad crossing to the Delaware Bay, the Department is proposing SE1 based on shellfish classification. The tributaries that flow into the SE1 portion of Cohansey River remain as FW2-NT/SE1 because it is not possible to determine the dividing line between the fresh and saline portions of the tributaries due the lack of AMNET stations, shellfish classification areas, or dams.

Dividing Creek: The Department is proposing to reclassify the current FW2/SE stream classifications of Dividing Creek as appropriate. The Department is proposing FW2-NT stream classification from source to Highland Street based on the location of AMNET station. The Department is proposing to retain the FW2-NT/SE1 stream classification from Highland Street to Delaware Bay. Portions of tributaries to Dividing Creek located within the boundaries of the Edward G. Bevan Wildlife Management Area, classified as FW1, will remain unchanged.

East Creek: The Department is proposing to reclassify the current FW2/SE stream classifications of East Creek as FW2-NT or SE1 as appropriate. The Department is proposing an SE1 stream classification from the boundary of the Pinelands Protection and Preservation Area to the Delaware Bay based on the presence of a shellfish classification area which extends into the Pinelands area. The Department is proposing to retain the Category One designation for portions of East Creek within the boundaries of the Dennis Creek Wildlife Management Area. Portions designated as PL and FW1 will remain unchanged. The tributaries that flow into the

SE1 portion of East Creek remain as FW2-NT/SE1 because it is not possible to determine the dividing line between the fresh and saline portions of the tributaries.

Mantua Creek: The Department is proposing to reclassify the current FW2/SE stream classifications of Mantua Creek as FW2-NT or SE2 as appropriate. The Department is proposing an FW2-NT stream classification from the source to Wenonah Avenue including all tributaries, based on the location of an AMNET station. The Department is proposing to retain the FW2-NT/SE2 stream classification from Wenonah Ave. to the Delaware River.

Maurice River: The Department is proposing to reclassify the current FW2/SE stream classifications of Maurice River as FW2-NT or SE1 as appropriate. The Department is proposing an FW2-NT stream classification from the confluence with Blackwater Branch to Union Lake Dam. The Department is proposing an SE1 stream classification from the Union Lake Dam to the Delaware Bay based on the shellfish classification area extending to the dam. Tributaries within the Union Lake Wildlife Management Area are proposed to be amended from FW2-NT/SE1(C1) to FW2-NT(C1) based on the location of a dam at the downstream boundary of Union Lake. Tributaries within the Wildlife Management Area that borders Delaware Bay are proposed to be amended from FW2-NT/SE1(C1) to SE1(C1) based on the shellfish classification area extending to the Union Lake. Portions currently designated as PL will remain unchanged. The tributaries that flow into the SE1 portion of Maurice River remain as FW2-NT/SE1 because it is not possible to determine the dividing line between the fresh and saline portions. The Department is also proposing to amend and correct the name of Willow Grove to Willow's Grove.

Muddy Run: The Department is proposing to correct the name of the wildlife management area under the second Elmer listing. The Greenwood Pond Wildlife Management Area is currently called the Elmer Lake Wildlife Management Area. Therefore, the Department is proposing to delete Greenwood Pond and replace it with Elmer Lake.

Oldmans Creek: The Department is proposing to reclassify the current FW2-NT/SE1 stream classifications of Oldmans Creek to FW2-NT as appropriate. The Department is proposing an FW2-NT stream classification from Kings Highway by Porches Mill to Main Street based on the location of an AMNET station. The Department is proposing to retain the FW2-NT/SE1 stream classification from Main Street to Delaware River.

Pargey Creek: The Department is proposing to reclassify the current FW2-NT/SE2 stream classifications of Pargey Creek to FW2-NT as appropriate. The Department is proposing an FW2-NT stream classification from Source to Swedesboro Ave. based on the location of an AMNET station. The Department is proposing to retain the FW2-NT/SE2 stream classification from Swedesboro Ave. to Repaupo Creek. Portions within the boundaries of Logans Pond Wildlife Management Area are currently designated as FW2-NT/SE2(C1) will remain the same.

Raccoon Creek: The Department is proposing to reclassify the current FW2-NT/SE2 stream classifications of Raccoon Creek to FW2-NT as appropriate. The Department is proposing an FW2-NT stream classification from the source to Kings Highway based on the location of an AMNET station at Kings Highway. The Department is proposing to retain the FW2-NT/SE2 stream classification from Kings Highway to Delaware River.

Sluice Creek: The Department is proposing to reclassify the current FW2-NT/SE1 stream classifications of Sluice Creek to FW2-NT or SE1 as appropriate. The Department is proposing an FW2-NT stream classification from the source to the lower boundary of Clint Millpond based on the presence of a dam. The Department is proposing SE1 stream classification from the Clint Millpond to Dennis Creek based on the shellfish classification area. Portions within the Beaver Swamp Wildlife Management Area and Dennis Creek Wildlife Management Area are currently designated as FW2-NT/SE1(C1). The Department is proposing FW2-NT(C1) for portion of the Creek within the Beaver Swamp Wildlife Management Area and SE1(C1) for portions within Dennis Creek Wildlife Management Area as this portion of the Creek is below Clint Millpond, therefore classified as SE1. The tributaries that flow into the SE1 portion of Sluice Creek remain

as FW2-NT/SE1 because it is not possible to determine the dividing line between the fresh and saline portions of the tributaries.

Stow Creek: The Department is proposing to reclassify the current FW2-NT/SE1 stream classifications of Stow Creek to FW2-NT and SE1 as appropriate. The Department is proposing an FW2-NT stream classification from the source to Buckhorn Road based on the location of an AMNET station. The Department is proposing SE1 stream classification from Buckhorn Road to Delaware River based on the shellfish classification area. Tributaries within the boundaries of the Mad Horse Creek Wildlife Management Area are currently designated as FW2-NT/SE1(C1) and will remain as such. The tributaries that flow into the SE1 portion of Stow Creek remain as FW2-NT/SE1 because it is not possible to determine the dividing line between the fresh and saline portions of the tributaries.

West Creek: The Department is proposing to reclassify the current FW2-NT/SE1 stream classifications of West Creek to FW2-NT and SE1 as appropriate. The Department is proposing SE1 stream classification from the boundary of the Pinelands Protection and Preservation Area to the boundary of the Fish and Game lands based on shellfish classification area. Portions designated as FW1 will remain unchanged. The tributaries that flow into the SE1 portion of West Creek remain as FW2-NT/SE1 because it is not possible to determine the dividing line between the fresh and saline portions of the tributaries.

N.J.A.C. 7:9B-1.15(f)

The Department is proposing to recodify the existing N.J.A.C. 7:9B-1.15(e) to N.J.A.C. 7:9B-1.15(f) and delete the table number. This subsection is designated as the surface water classifications for waters of the Passaic, Hackensack and New York Harbor Complex Basin.

The Department is proposing amendments to stream classifications to Macopin River tributary, Mathews Brook and Pequannock River tributary at Suntan Lakes based on trout sampling data as discussed above under trout classifications. In addition, as described above

under N.J.A.C. 7:9B-1.15(d), the Department is proposing to modify the current FW2-NT/SE1 stream classifications based on the evaluation of the information described above. In addition, the Department is proposing to amend listings in this subsection to make administrative changes and corrections, also described below.

Canistear Reservoir Tributary: The Department is proposing to extend the FW2-NT(C1) stream classification to the eastern tributary. The Department designated all natural tributaries of Pequannock River upstream of Charlottesburg Reservoir as Category One. (See 39 N.J.R. 1857 and 40 N.J.R. 3630(b)). Canistear Reservoir is upstream of Charlottesburg Reservoir, therefore, the Department is proposing to extend the Category One designation to the eastern tributary of Canistear Reservoir.

Green Pond Brook: The Department is proposing to include Picatinny Lake as part of the Green Pond Brook listing under Wharton. The Department proposed and adopted upgrades to the antidegradation designation for Rockaway River from its source to the Boonton Reservoir. (See 39 N.J.R. 1857 and 40 N.J.R. 3630(b)). The Department inadvertently omitted to include the Picatinny Lake at that time.

Hohokus Brook: The Department is proposing to classify the entire length of the Hohokus Brook as FW2-NT. Hohokus Brook runs into Saddle River which is being proposed as FW2-NT as discussed below. Therefore, the Department determined that the Hohokus Brook should be classified as FW2-NT.

Rockaway River: The Department is proposing to specify that the FW2-NT(C1) stream classification is applicable to all tributaries of the Rockaway River under the Dover and Boonton listings. The Department proposed and adopted upgrades to the antidegradation designation for Rockaway River from its source to the Boonton Reservoir. (See 39 N.J.R. 1857 and 40 N.J.R. 3630(b)). The Department inadvertently omitted to include the tributaries under Dover and Boonton listings at that time.

Russia Brook: The Department is proposing an FW2-NT(C1) stream classification for Russia Brook from Lake Swannanoa to the Rockaway River. The Department designated Category One to the Rockaway River and its tributaries from its source to the Boonton Reservoir, including all unnamed and unlisted tributaries that are currently not designated as FW1 or Category One. (See 39 N.J.R. 1857 and 40 N.J.R. 3630(b)) based on the exceptional water supply significance. Russia Brook is a tributary of Rockaway River above the Boonton Reservoir. The current listings for Russia Brook does not include Lake Swannanoa and its outlet stream. Therefore, the Department is proposing Lake Swannanoa and its outlet stream as FW2-NT(C1).

Saddle River: The Department is proposing to reclassify the current FW2-NT/SE3 stream classifications of Saddle River to FW2-NT as appropriate. The Department is proposing to classify Saddle River from Allendale Road bridge to Marsellus Place as FW2-NT stream classification based on the location of AMNET station at Marsellus Place. The Department is proposing to retain the classification of Saddle River from Marsellus Place to the Passaic River as FW2-NT/SE3.

N.J.A.C. 7:9B-1.15(g)

The Department is proposing to delete the table number of the classification table and split the Raritan River Basin and Raritan Bay into upper and lower drainage basins. Raritan River and all its tributaries except Duck Pond Run and Milstone River are in the upper Raritan River Basin. This subchapter will designate the surface water classifications for waters of the Upper Raritan River and Raritan Bay Basin. The Department is proposing to split the Raritan River Basin into upper and lower drainage basins to accommodate the proposed new pH criteria applicable to FW2 waters in the southern portions of New Jersey out side the Pineland Protection and Preservation Area boundaries. Raritan River and all tributaries that drain into Raritan River from the north are proposed to be include in the Upper Raritan River and Raritan Bay Basin and all the tributaries that drain to the Raritan River from the south are proposed to be included in the Lower Raritan River Basin. This split between upper and lower Raritan Basins approximately

falls along the US Route 1. Those waterbodies to be included in the upper Raritan River drainage classification table are recodified from N.J.A.C. 7:9B-1.15(f) to N.J.A.C. 7:9B-1.15(g). Those waterbodies to be included in the lower Raritan River drainage classification table are recodified from N.J.A.C. 7:9B-1.15(f) to N.J.A.C. 7:9B-1.15(h).

Green Brook: The Department is proposing to correct the listing of Green Brook. The segment of the Brook near the mouth of Raritan River is missing from the existing classification listing. Therefore, the Department is proposing to extend the FW2-NT classification of Green Brook from the Route 22 bridge to the Raritan River under the listing for Plainfield.

Stony Brook: The Department is proposing to add a new listing of Carnegie Lake to specify that the Stony Brook from Quaker Road to Millstone River is classified as FW2-NT. The Department adopted amendments to designate Category One to the mainstem of Stony Brook (See 39 N.J.R. 1852 and 40 N.J.R. 3630(b)). The Department is adding the stream segment from Quaker Road to Millstone River as FW2-NT under the heading of Carnegie Lake. This segment is not included in the current stream classification listings.

N.J.A.C. 7:9B-1.15(h)

As indicated in the summary of N.J.A.C. 7:9B-1.15(g) above, the Department is proposing to recodify the stream classification listings of waters in the Raritan River Basin below US Route 1 to N.J.A.C. 7:9B-1.15(h) and designate this subsection as the listing of classifications for the lower Raritan River and Raritan Bay Basin. All major streams south of Raritan River, including Duck Pond Run, Milstone River, and tributaries of Raritan River that drain from the south are in the lower Raritan River Basin.

In addition, the Department is proposing to modify the current FW2-NT/SE1 stream classifications as described above. The proposed changes are described below.

Swimming River: Swimming River was classified by the Department as FW2-NT/SE1. This classification does not appear in the Administrative Code due to an administrative error. The Department is correcting this administrative error and is now proposing to reclassify Swimming River from Swimming River Reservoir dam to Normandy Road as FW2-NT based on shellfish classification area which ends at Normandy Road. The Department is proposing to classify the stream stretch from Normandy Road to the Navesink River as SE1 also based on shellfish classification area.

The Department is proposing to recodify the existing N.J.A.C. 7:9B-1.15(g) through (i) as N.J.A.C. 7:9B-1.15(i) through (k). The Department is proposing changes to the tittles at N.J.A.C. 7:9B-1.15(i) and (j) to reflect the deletion of table numbers, but is not proposing any changes to the text.

Social Impact

The proposed re-adoption of N.J.A.C. 7:9B with amendments will allow the Department to continue to protect the surface waters of the State and will, therefore, result in a positive social impact. Without the SWQS, the Department would not have water quality criteria, stream classifications and antidegradation designations needed to protect and enhance water qualify for the aquatic life use, water supplies, shellfish harvesting, recreation, and other appropriate uses. The SWQS are used by the NJPDES program to develop effluent limitation and other permit requirements to ensure the environmental goals for the State's waters are restored, maintained and enhanced. The Department's Division of Land Use Regulation uses the SWQS to determine the buffer requirements to ensure that high quality waters designated as Category One are protected. The maintenance of high quality water resources is important to all, particularly to the many communities which depend upon surface waters for public, industrial, and agricultural water supplies, recreation, tourism, fishing, and shellfish harvesting. Further, the State of New Jersey may not retain delegated jurisdiction over the federal NPDES permitting program in this State in the absence of adopted SWQS.

The proposed policy to encourage the use of reclaimed water for beneficial uses at N.J.A.C. 7:9B-1.5(a)8 should reduce the demands on our drinking supplies for uses which do not require these high quality water, therefore, should have a positive impact. The proposed amendment at N.J.A.C. 7:9B-1.5(a)9 regarding compliance with the water quality standards that will be in accordance with the Integrated Water Quality Monitoring and Assessment document will have a positive impact by clarifying how compliance with SWQS is conducted.

The proposed antidegradation amendments at N.J.A.C. 7:9B-1.5(d) will have a positive social impact by protecting high quality waters from additional degradation. The proposed amendments to the Pinelands policies are consistent with the existing policies. The proposed amendments at N.J.A.C. 7:9B-1.5(d)2.v, that indicates that the antidgradation policies for the Delaware River's Special Protection Waters are as listed in the DRBC regulations are already required pursuant to the DRBC regulations.

The existing water quality criteria and the proposed amendments to the criteria for pH, phosphorus, temperature, and cyanide at N.J.A.C. 7:9B-1.14 will enable the Department to issue NJPDES permits with WQBELs based on the updated criteria reflecting current science. The recodification of the Whole Effluent Toxicity Requirements and translators from the SWQS to the NJPDES rules will continue to ensure that effluent limitations and permit requirements imposed in the NJPDES permits are also based on updated scientific information. These requirements will have a positive social impact by appropriately protecting designated uses.

The proposed readoption with amendments to N.J.A.C. 7:9B-1.15 will allow the Department to provide more appropriate protection to the waterbodies and will therefore, result in a positive social impact. The maintenance of water quality resources is important to all residents, particularly to the many communities that depend upon surface waters for public water supply, industrial and agricultural water supplies, recreation, tourism, and fishing.

Economic Impact

The proposed readoption with amendments will produce a variety of economic impacts, ranging from no economic impact, to potentially significant impact. The Surface Water Quality Standards allow for flexibility in the methods utilized to achieve water quality goals to allow the regulated community to choose compliance measures that reduce economic impacts while assuring that the State's waters are protected. The magnitude of the economic impacts will be determined in part, by the activity, the severity of the site-specific conditions and the approaches chosen to comply with the SWQS.

The stream classifications, antidegradation designations, water quality criteria, and policies in the SWQS are used by the Division of Water Quality to develop effluent limitations and permit requirements included in New Jersey Pollutant Discharge Elimination System (NJPDES) permits. The proposed readoption of the water quality criteria at N.J.A.C. 7:9B-1.14 will continue the economic impact associated with complying with the rules. Costs of compliance for water quality sampling, analysis, and reporting will not change because these activities are already required by the Department to satisfy existing Federal regulations whenever NJPDES permits are initially issued, renewed, or modified. Prevention of further degradation of the surface waters is one step toward maintaining the quality of the surface water. This will have a positive economic benefit for the public health (including reduction in medical expenses) and ecological values, as well as for recreational, industrial, and agricultural users of the State's waters.

The potential economic impact of the surface water quality criteria is highly variable. The economic impact will be determined based upon whether or not the facility has reasonable potential to cause the instream concentration of a pollutant to exceed the SWQS. Where the NJPDES program determines that a WQBEL is required, the costs will vary widely. The magnitude of the economic impacts will be determined by the approach a discharger or potential discharger implements to comply or continue to comply with the effluent limitations. Possible approaches to meet effluent limitations could include the construction and operation of additional treatment units; the installation of pretreatment at the source, potential for pollutant trading

through watershed-based approaches to NJPDES permitting; pollution prevention to reduce or eliminate the discharge of a pollutant.

The magnitude of the economic impacts will be determined by the factors required to develop Water Quality Based Effluent Limitations (WQBELs). WQBELs are derived using several factors, including the volume of waste water discharge, pollutant-specific upstream concentration, the applicable design flow of the receiving waterbody specified at N.J.A.C. 7:9B-1.5(c)2, the appropriate water quality criterion (acute, chronic, or human health criterion) and the applicable averaging periods as specified at N.J.A.C. 7:9B-1.14. Due to the number of factors utilized in the derivation process of the WQBELs, which may result in dramatically different values based on the site specific conditions, it is difficult to estimate the economic impact associated in each case.

The Department is not proposing any changes to implementation policies to the antidegradation provisions but only proposing amendments at N.J.A.C. 7:9B-1.5(d) to clarify and modernize the existing rule. Therefore, the Department is not expecting any additional economic impact rather expects the same economic impacts based on the existing rules. The antidegradation policies at N.J.A.C. 7:9B-1.5(d) add additional requirements for applicants for a new or expanding discharge that requires a NJPDES permit. The Water Quality Management Planning Rules (WQMP) at N.J.A.C. 7:15-5.25(d)3 specify the wastewater treatment alternatives that must be considered as part of the antidegradation analysis which is required before the Department may adopt a wastewater management plan, wastewater management plan update or wastewater management plan amendment. If the applicant is not able to comply with the antidegradation policy, the sewer service area must be adjusted so that the potential wastewater generation does not exceed the permitted capacity. The demonstration required in the WQMP rules to comply with the antidegradation policies at N.J.A.C. 7:9B-1.5(d) will result in significant economic impact to complete the necessary evaluations. The economic impacts to comply with the antidegradation policies, again, are varied and will depend on many factors. A facility seeking to add more wastewater flow but decides to not seek an increase in the quantity of

pollutants discharge, the economic impact is expected to be relative low. However, if additional treatment is needed to comply, costs may range from low to high depending on the pollutant that require additional treatment and the resulting WQBELs and the factors described above. Except as described below, the proposed amendments to the SWQS are not expected to result in additional economic impact.

The Division of Land Use Regulation uses the stream classifications and the antidegradation designations to establish permit conditions on applicants proposing projects that require a permit under the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) and/or the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A). These rules establish requirements based on stream classifications and antidegradation designations. Projects that impact FW2-Trout Production waters or streams designated as Category One must maintain a 300 foot buffer or riparian zone. An applicant may incur additional costs to redesign to avoid disturbing the riparian zone. In some cases, the applicant may have to downsize or abandon their project, which may have significant economic impacts.

The proposed policy to encourage the use of reclaimed water for beneficial uses at N.J.A.C. 7:9B-1.5(a)8 is expected to increase costs to facilities implementing additional wastewater treatment so that their effluent may be utilized as a replacement water source. The requirement to evaluate reclaimed water for beneficial uses is an alternative that must be considered as part of the antidegradation review for new or expanding NJPDES facility seeking a wastewater management plan, wastewater management plan update or wastewater management plan amendment. However, the Department believes that the cost of additional treatment may be offset by avoiding costs to purchase water from a purveyor.

The proposed policy to provide a cross-reference to the Integrated Water Quality Monitoring and Assessment Methods Document (Methods Document) developed pursuant to N.J.A.C. 7:15-6.2 and used as the basis for evaluating whether waterbodies are meeting their designated uses and if the uses are not met, identifying the pollutant causing the waterbody to not

support its designated uses is not expected to have any economic impact. However, the Department is required to develop TMDLs for waterbodies identified as impaired pursuant to N.J.A.C. 7:15-6.2. The TMDLs include load allocations for nonpoint sources and wasteload allocations for point sources that may require additional treatment. The economic impacts may be significant depending on the load reduction specified in the TMDL.

The proposed provision to update criteria through a register notice at N.J.A.C. 7:9B-1.5(c)6 will have a positive economic impact by ensuring that the criteria used to develop water quality based effluent limitations and Total Maximum Daily Loads, (TMDLs) are based on updated scientific information. Where the updated criteria become less stringent, the facility may not need to install additional wastewater treatment. However, where criteria become more stringent, the impacts may be significant depending on the location of the discharge, the current effluent quality and the background concentration upstream of the discharge.

The proposed amendments to nutrient policies at N.J.A.C. 7:9B-1.5(g) and phosphorus criteria at N.J.A.C. 7:9B-1.14(d)5 will enable the Department to focus the requirement for additional treatment on facilities that discharge to streams that do not meet the narrative criteria rather than requiring treatment because the ambient phosphorus concentration exceeds 0.1 mg/L. As indicated in the summary, the Department has developed new assessment method which will be incorporated in the 2010 Integrated Water Quality Monitoring and Assessment Methods Document to evaluate the narrative criteria. The evaluation of compliance with the narrative criteria could conclude that phosphorus does not render the waters unsuitable. The NJPDES permittees that discharge to waters with phosphorus concentrations in excess of the current numeric criteria of 0.1 mg/L that meet the narrative criteria will not be required to install additional treatment. However, where the Department determines that the waterbody does not meet the narrative criteria, regardless of the phosphorus concentration, the facility may be required to meet more stringent WQBELs. As described above, the economic impact on facilities will vary as described aboved depending on the WQBEL imposed through the NJPDES permit.

The proposed saltwater aquatic criteria for cyanide at N.J.A.C. 7:9B-1.14(f), is less stringent than the existing criteria and is based on more recent and updated toxicity data. Therefore, may have a positive economic impact for those dischargers with water quality based effluent limits in their NJPDES permits.

The proposed amendments to stream classifications at N.J.A.C. 7:9B-1.15 based on trout sampling is not expected to result in any additional economic impacts. The two segments proposed to also be designated as Category One waters, already were subject to the 300 foot buffer/riparian zone requirements. As a result, these amendments to the antidegradation designation do not alter the economic impact.

The changes to the stream classification at N.J.A.C. 7:9B-1.15 from the existing FW2-NT/SE to FW2-NT or SE are not expected to cause any additional economic impact. A site-specific evaluation is required to determine whether the location was freshwater or saline to determine what criteria should be utilized to develop WQBEL. Therefore, the changes being proposed to separate the classifications based on the available information, ensures that the appropriate criteria are utilized and may eliminate the need for a discharge to provide the information necessary to make the site-specific determination.

Environmental Impact

The proposed re-adoption with amendments of the Surface Water Quality Standards will have a positive environmental impact by continuing to restore, maintain, and enhance the chemical, physical, and biological integrity of New Jersey's waters. The proposed amendments are intended to efficiently and predictably provide appropriate levels of protection for human health, aquatic biota, and ecological systems associated with the State's waters. These amendments also represent the Department's continuing efforts to restore, maintain, and enhance the chemical, physical, and biological integrity of New Jersey's waters; protect scenic and ecological values; enhance the domestic, municipal, recreational, and other reasonable uses of the State's waters; and provide general environmental benefits.

Some proposed amendments, like the administrative corrections, are environmentally neutral, while others, like nutrient policies, upgraded water quality criteria, and stream classifications will produce positive environmental impacts.

The proposed criteria for phosphorus, pH, temperature, and cyanide at N.J.A.C. 7:9B-1.14 are based on updated information and are more appropriate for water quality protection. Permits based on updated criteria will ensure that the designated uses are appropriately protected and provide improved environmental protection.

The stream classifications and antidegradation designations proposed for readoption and amendments at N.J.A.C. 7:9B-1.15 will continue provide a positive environmental impact by clearly identifying the designated uses and the criteria to protect those uses. Streams designated as Category One receive additional protections to ensure that the existing water quality which is better than the adopted water quality criteria is maintained.

Federal Standards Analysis

Executive Order 27 (1994) and N.J.S.A. 52:14B-1 *et seq*. require that State agencies which adopt, readopt, or amend State regulations that exceed any Federal standards or requirements include in the rulemaking document a Federal standards analysis.

The Federal Clean Water Act (CWA), 33 U.S.C. 1251 *et seq*., as amended by the Water Quality Act of 1987 (PL 100-4) requires the establishment of water quality standards for all surface waters of the United States. (The Water Quality Act of 1987 amended the CWA to require the adoption of criteria for toxic pollutants identified as causing or contributing to an impairment of a waterbody's designated use(s).) Individual states are given primary responsibility for developing and adopting surface water quality standards applicable to their waters. The USEPA is responsible for overseeing and approving state water quality standards, providing guidance on the content of the standards, and developing water quality criteria guidance documents. Key elements of the surface water quality standards program required

under the CWA are: a classification system establishing designated beneficial uses of the waters; ambient water quality criteria necessary to protect those uses; minimum uses to be attained, which reflect the fishable and swimmable goals of the CWA; and antidegradation policies and implementation procedures to prevent water quality from deteriorating. Furthermore, the CWA includes provisions requiring the USEPA to promulgate superseding Federal standards where the USEPA concludes that a State's standards are not consistent with the requirements of the CWA, or where Federal requirements are necessary to meet the requirements of the CWA.

The SWQS proposed for re-adoption with amendments are required by and consistent with the Federal statutes, regulations and guidance. The Department has prepared the following sectional analysis of the SWQS, which compares each section with the applicable Federal law, regulations and guidance, as required by Executive Order 27 (1994) and P.L. 1995, c. 65.

N.J.A.C. 7:9B-1.1 through 1.3 describe scope, construction, and severability. Nothing in these sections is subject to Federal standards; therefore, no further analysis is needed.

N.J.A.C. 7:9B-1.4 contains definitions of terms used within the SWQS. Most of these definitions are the same as those used by the Federal government in either the Federal Water Quality Standards Regulation at 40 CFR 131.3 or in the glossary of a guidance document for states entitled *Water Quality Standards Handbook: Second Edition* (August 1994, EPA-823-B-94-005a) (Handbook). There are a few definitions that can not be found in the Federal regulations or guidance documents however, each one of them are consistent with the Federal policies.

N.J.A.C. 7:9B-1.5 establishes the policies applicable to the protection and enhancement of surface water resources throughout the State. These include general, interstate waters, general technical (including mixing zone policies), antidegradation, water quality-based effluent limitation, whole effluent toxicity requirements, and nutrient policies. The general policies and interstate waters policies at N.J.A.C. 7:9B-1.5(a) and (b) are either exempt from Federal

standards, or identical to language found in the Federal Water Quality Standards Regulations (see 40 CFR 131).

The general technical policies are specified at N.J.A.C. 7:9B-1.5(c). These policies include the design flows for different types of water quality criteria. The USEPA provides guidance and recommendations on design flows in the Handbook and in the Technical Support Document. The design flows specified at N.J.A.C. 7:9B-1.5(c) are identical to the USEPA recommendations, therefore, no further analysis is required.

Antidegradation policies are specified in the SWQS at N.J.A.C. 7:9B-1.5(d). The Federal regulation governing antidegradation policies are found at 40 CFR 131.12. It requires that states develop and adopt antidegradation policies and implementation procedures to ensure that the level of water quality needed to protect existing uses is maintained. Additionally, it states that water quality better than necessary to protect existing uses shall be maintained and protected unless demonstrations are made to support lowering the water quality. New Jersey has three levels of antidegradation protection in its Surface Water Quality Standards. The highest tier, which includes FW1 and Pinelands (PL) waters, is assigned to waterbodies that qualify as Outstanding National Resource Waters (ONRW). These waters are to be maintained in their natural state. Wastewater discharges to ONRW are prohibited. The next tier is Category One waters, which are protected from measurable changes in water quality. All other waters are designated as Category Two waters, where a lowering in water quality may be allowed for important social and economic development, provided water quality criteria continue to be met. New Jersey's antidegradation policies are consistent with and do not impose restrictions more stringent than those allowed under the Federal water quality standards regulations. Therefore, no further analysis is required.

N.J.A.C. 7:9B-1.5(e-g) and 1.6 set forth policies, conditions and procedures to be used when developing water quality-based effluent limitations, whole effluent toxicity requirements, and nutrient policies, including general applicability, necessary information, and methodologies.

They are based on Federal NPDES regulations at 40 CFR 122.44(d), and Federal guidance derived from *Technical Support Document for Water Quality-based Toxics Control* or the TSD (EPA/505/2-90-001). In addition, amendments proposed to the nutrient policies and criteria are based on the USEPA National Nutrient Policy. Therefore, no further analysis is required.

New Jersey's mixing zone policies are found at N.J.A.C. 7:9B-1.5(h). Mixing zones are defined in the SWQS as localized areas of surface waters, as may be designated by the Department, into which wastewater effluents may be discharged for the purpose of mixing, dispersing, or dissipating such effluents without creating nuisances or hazardous conditions. If applied to a particular discharge, they result in less stringent NJPDES permit limitations. Federal regulations governing mixing zones clearly state that inclusion of mixing zones in State SWQS is optional. 40 CFR 131.13 provides that "States may, at their discretion, include in their State surface water quality standards, policies generally affecting their application and implementation, such as mixing zones..." None of the language in the SWQS regarding mixing zones is more stringent than provided for in the Federal rule; therefore, no further analysis is necessary. The Department notes that the USEPA's Handbook and TSD provide guidance for developing and implementing mixing zone regulations for states that include mixing zones in their SWQS. N.J.A.C. 7:9B-1.5(c)4 does not contain any provisions that are more stringent than those contained in the Handbook or TSD.

N.J.A.C. 7:9B-1.7 requires that any total maximum daily load, wasteload allocation, or load allocation established as an amendment to an areawide water quality management plan must be consistent with this chapter. This language mirrors the Federal water planning regulation language found at 40 CFR 130.7(c); therefore, no further analysis is required.

N.J.A.C. 7:9B-1.8 and 1.9 set forth the procedures to be followed by applicants requesting a modification (also called variances) of WQBELs for discharges into Category One and Category Two waterbodies, respectively. There is no specific Federal regulation requiring that states adopt such variance procedures into their water quality standards. At 40 CFR 131.13

it is stated, "States may, at their discretion, include in their State surface water quality standards, policies generally affecting their application and implementation, such as... variances." The USEPA provides further guidance in the Handbook for developing and implementing regulations governing variances for States that do include them in their SWQS. No further analysis is therefore required.

N.J.A.C. 7:9B-1.10 sets forth specific requirements for petitioning the Department to remove a designated use from a waterbody. This language incorporates Federal requirements found at 40 CFR 131.10(g) and (h) and is not more stringent. No further analysis is required.

N.J.A.C. 7:9B-1.11 sets forth specific requirements for petitioning the Department to add a designated use to a waterbody. This language incorporates Federal requirements found at 40 CFR 131.10(i) and is not more stringent. No further analysis is required.

N.J.A.C. 7:9B-1.12 and 1.13 provide for the designated uses of the different surface water classifications of New Jersey and of the Delaware River and Bay. The Federal water quality standards regulations at 40 CFR 131.10(a) require that states specify appropriate uses to be achieved and protected in their surface waters. The Handbook gives further guidance on designating uses for surface waters: “consistent with the requirements of the CWA and Water Quality Standards Regulation, states are free to develop and adopt any use classification system they deem appropriate, except that waste transport and assimilation is not an acceptable use in any case (see 40 CFR 131.10(a)).” The uses specified in N.J.A.C. 7:9B-1.12 and 1.13 are therefore, consistent with Federal requirements and no further analysis is required.

N.J.A.C. 7:9B-1.14 contains the surface water aquatic life and human health protection criteria (both narrative statements and numerical values) for waters classified as PL, FW2, SE and SC. New Jersey has adopted criteria for pollutants to protect the aquatic biota and humans from detrimental effects from exposure to these pollutants in surface waters of the State. N.J.A.C. 7:9B-1.14 also states that the surface water criteria for the Delaware River and Bay are

as contained in the Delaware River Basin Commission regulations. Federal regulations require that states must adopt water quality criteria that protect the designated uses (40 CFR 131.11(a)(1)). The numerical criteria should be based on CWA Section 304(a) guidance or 304(a) guidance modified to reflect site-specific conditions, or other scientifically defensible methods (40 CFR 131.11(b)(1)(i.-iii.)).

The proposed pH criteria for FW2-NT waters of south Jersey outside the boundaries of Pinelands Protection and Preservation area are based on the evaluation of more recent site-specific monitoring data. The USEPA recommends updating criterion as new data become available. The proposed pH criteria for southern coastal FW2-NT waters is based on the natural conditions and therefore, meet the Federal requirements that numerical criteria should be based on CWA Section 304(a) guidance modified to reflect site-specific conditions (40 CFR 131.11(b)1(ii)).

The proposed amendments to Phosphorus criteria are based on the USEPA "*National Nutrient Policy*". Therefore, no further analysis is required.

The proposed amendments to Temperature criteria are based on more recent updated data and developed to protect native fish species. Therefore, no further analysis is required.

The proposed saltwater criteria for Cyanide are less stringent than the Federal criteria. However, the revised proposed criteria were based on more recent toxicity data available. The USEPA recommends updating criterion as new toxicity data become available. In addition, these revised criteria were derived based on the USEPA recommended methodology and have been reviewed and approved by the USEPA for consistency. Therefore, the proposed criteria meet the Federal requirements at 40 CFR 131.11(a)1.

N.J.A.C. 7:9B-1.15 contains specific waterbody classification listings, antidegradation designations, and instructions for the use of the classification tables. The waterbody

classifications and antidegradation designations are arranged by major drainage basin. The Federal water quality regulations at 40 CFR 131.10 require that states specify appropriate water uses to be achieved and protected. The Department's SWQS waterbody classification listing is a tool to identify these designated uses such as protection and propagation of fish, shellfish, and wildlife, recreation in and on water, public water supplies, agricultural and industrial. Therefore, these waterbody classifications are consistent with the Federal regulations.

In addition, 40 CFR 131.12 establishes requirements for states to develop and adopt antidegradation policies and implementation procedures to ensure that the level of water quality needed to protect existing uses is maintained, and that water quality better than necessary to protect existing uses is maintained and protected unless demonstrations are made in support of lowering the water quality. The proposed changes in antidegradation designation identify the level of protection and implementation procedures that must be followed. The antidegradation designations are consistent with, and do not exceed Federal standards. Therefore, no further analysis is required.

Jobs Impact

Pursuant to N.J.S.A. 52:14B-1 *et seq*. (P.L. 1995, c. 166), all rule proposals must contain a jobs impact statement assessing the number of jobs to be generated or lost if the proposed rule takes effect.

The implementation of the SWQS through the Site Remediation Program, the Division of Land Use Regulation, the Division of Watershed Management and the Division of Water Quality will continue to result in job opportunities in analytical and environmental consulting services to evaluate and design the most cost effective abatement measures to achieve compliance. Should such abatement measures involve new capital improvements, job opportunities related to construction, contracting services, operation, and maintenance of these improvements would be created. Implementation of the SWQS will result in more of the State's waters achieving designated uses which is likely to create new jobs in water related business such as shellfish

harvesting, recreational fishing, commercial fishing, and ecotourism. Failure to implement the SWQS proposed for re-adoption with amendments could result in lost employment opportunities in businesses and industries that are water quality dependent, such as tourism and fishing.

Agriculture Industry Impact

Pursuant to P.L. 1998, c.48, adopted on July 2, 1998, the Department has evaluated this rulemaking to determine the nature and extent of the impacts of the proposed rules on the agricultural industry. The agricultural industry is not subject to the SWQS unless the operation is required to obtain an NJPDES permit pursuant to N.J.A.C. 7:14A. Farms that operate a food processing operation or conduct other activities which discharge to surface water are required to obtain a NJPDES permit. Farms that operate a NJPDES regulated discharge will incur costs to comply with their NJPDES permit including permit fees, laboratory costs for sample analysis, and potentially costs for engineering services. The total costs imposed will depend on the requirements established in the facility's individual permit which is based on the nature of the operation, the location of the discharge, and the volume and type of pollutants discharged.

In addition, farms that operate a "concentrated animal feeding operation" (CAFO) as described in N.J.A.C. 7:14A-2.13 are required to obtain a NJPDES permit if they discharge to surface water or groundwater. Farms that operate such CAFOs will also incur costs to comply with these rules as incorporated as NJPDES permit condition. The cost of complying with NJPDES permit conditions for CAFOs is variable and depends on a number of factors, including number and type of animals confined, existing animal waste practices at the farm, and availability of cropland and pastureland for manure application.

Regulatory Flexibility Analysis

In accordance with the Regulatory Flexibility Act, N.J.S.A. 52:14B-16 *et seq.*, the Department has determined that the proposed readoption with amendments will impact "small businesses" as defined in that Act. The proposed readoption with amendments would affect any small businesses engaging in activities that affect the quality or uses of the surface waters of the

State through pollutant discharges. As mentioned in the Economic Impact statement above, the initial costs of compliance for water quality sampling, analysis and reporting may increase for small businesses to comply with their NJPDES permits. Continued costs may include those associated with hiring professional services to design treatment facilities or other measures necessary to comply with the NJPDES permits. For example, a business may hire licensed professional engineers to design best management practices for compliance with the SWQS. The capital and annual compliance costs to small businesses could vary from approximately several thousand dollars to several million dollars, depending on variable factors such as type of activity, classification of the waterbody affected, existing abatement methods, and required levels of pollutant reduction. In proposing these amendments, the Department has balanced the expected economic impacts of the rules upon small businesses against the need to protect the environment and public health while complying with Federal law. The Department has determined that any attempt to relax the requirements for small businesses would endanger safety, public health and the environment. Therefore, no exemption from the rule is specifically provided for small businesses.

Smart Growth

Executive Order No. 4 (2002) requires State agencies which adopt, amend or repeal any rule adopted pursuant to N.J.S.A. 52:14B-4(a) of the Administrative Procedure Act to describe the impact of the proposed rule on the achievement of smart growth and implementation of the New Jersey State Development and Redevelopment Plan (State Plan), N.J.S.A. 52:18A-196 et seq. The Department has evaluated this rulemaking to determine the nature and extent of the proposed amendments' impact on smart growth and implementation of the State Plan. Smart growth discourages development where it may impair or destroy natural resources or environmental qualities that are vital to the health and well being of the present and future citizens of New Jersey.

The SWQS and the proposed amendments are intended to conserve the State's natural resources, namely, its surface waters and associated biota, which implements State Planning

Goal 2: Conserve The State's Natural Resources and Goal 4: Protect The Environment. Goal 2 provides that the State's natural resources (including - rivers, fresh and saltwater wetlands, habitats of unique flora and fauna) have significant intrinsic value as critical elements of the State's quality of life. The implementing strategy calls for conserving the State's natural resources. Goal 4 provides that "A clean, safe and attractive environment is essential to assuring the health of our citizens. Sustainable supplies of clean water, clean air and an abundance of open space and recreational opportunities also will assure a sustainable economy." The implementing strategy is to "Protect the environment by planning for growth in compact forms, at locations and densities of use that make efficient use of existing and planned infrastructure and by increasing infrastructure capacities and growth potential in areas where development will not damage water resources, critical habitats or important forests…" The SWQS and the proposed amendments are consistent with the goals of the State Plan and continue to require actions to protect waters which provide a sustainable supply of water, support unique flora/fauna, and other selected water resources and to restore waters which are currently impaired.

Affordable housing impact analysis

In accordance with N.J.S.A. 52:14B-4, as amended effective July 17, 2008, by P.L. 2008, c. 46, the Department has evaluated the proposed readoption with amendments to N.J.A.C. 7:9B for purposes of determining their impact, if any, on the affordability of housing. The Federal Clean Water Act (CWA), 33 U.S.C. 1251 *et seq*., as amended by the Water Quality Act of 1987 (PL 100-4) requires states to establish water quality standards for all surface waters. These Standards are the Federal standards for the purposes of implementing the Clean Water Act programs. In the absence of State adopted water quality standards, the USEPA would propose and adopt standards applicable to New Jersey. As indicated in the federal standards analysis, New Jersey's SWQS are consistent with the recommended federal requirements. The SWQS are implemented through other programs including the New Jersey Pollutant Discharge Elimination System (NJPDES) (N.J.A.C. 7:14A) surface water discharge permitting program in the development of water quality-based effluent limitations (WQBEL) to protect or improve existing water quality and designated uses. They are also utilized by the Department's Site Remediation

Program (N.J.A.C. 7:26E) to ensure discharges flowing to surface water comply with the SWQS. The Land Use Regulation Program, through the Freshwater Wetlands Program (N.J.A.C. 7:7A), the Coastal Permitting Program (N.J.A.C. 7:7E), and the Flood Hazard Area Control Act Program (N.J.A.C. 7:13), also utilizes the SWQS to establish permit requirements. The SWQS allow for flexibility in the methods utilized to achieve water quality goals to allow the regulated community to choose compliance measures that reduce economic impacts while assuring that the State's waters are protected. Therefore, the Department believes there is an extreme unlikelihood that the proposed readoption with amendments would affect the average costs associated with housing.

Smart Growth Development Impact

In accordance with N.J.S.A. 52:14B-4, as amended effective July 17, 2008, by P.L. 2008, c. 46, the Department has evaluated the proposed readoption with amendments to N.J.A.C. 7:9B for purposes of determining their impact, if any, on smart growth development. The Federal Clean Water Act (CWA), 33 U.S.C. 1251 et seq., as amended by the Water Quality Act of 1987 (PL 100-4) requires states to establish water quality standards for all surface waters. These Standards are the Federal standards for the purposes of implementing the Clean Water Act programs. In the absence of State adopted water quality standards, the USEPA would propose and adopt standards applicable to New Jersey. As indicated in the federal standards analysis, New Jersey’s SWQS are consistent with the recommended federal requirements. The SWQS are implemented through other programs including the New Jersey Pollutant Discharge Elimination System (NJPDES) (N.J.A.C. 7:14A) surface water discharge permitting program in the development of water quality-based effluent limitations (WQBEL) to protect or improve existing water quality and designated uses. They are also utilized by the Department's Site Remediation Program (N.J.A.C. 7:26E) to ensure discharges flowing to surface water comply with the SWQS. The Land Use Regulation Program, through the Freshwater Wetlands Program (N.J.A.C. 7:7A), the Coastal Permitting Program (N.J.A.C. 7:7E), and the Flood Hazard Area Control Act Program (N.J.A.C. 7:13), also utilizes the SWQS to establish permit requirements. The SWQS allow for flexibility in the methods utilized to achieve water quality goals to allow the regulated

community to choose compliance measures that reduce economic impacts while assuring that the State's waters are protected. Therefore, the Department believes there is an extreme unlikelihood that the proposed rules would evoke a change in housing production within Planning Areas 1 or 2 or within Designated Centers.

Full text of the proposal follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]:

CHAPTER 9B SURFACE WATER QUALITY STANDARDS

SUBCHAPTER 1. SURFACE WATER QUALITY STANDARDS

7:9B-1.4 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

. . .

["Ambient temperature" means the temperature of a waterbody beyond the portion of the waterbody that is affected by the localized heated waste discharge or discharge complex; or the temperature of a waterbody that would exist without the addition of heated discharges.

"Anadromous fish" means fish that spend most of their life in saline waters and migrate to fresh waters to spawn.]

. . .

"Best management practices" or "BMPs" means the methods, measures, or practices to prevent or reduce the amount of pollution from point or [non-point]**nonpoint** sources, including structural and nonstructural controls, and operation and maintenance procedures.

. . .

["Bioconcentration" means the net accumulation of a substance by an aquatic organism, as a result of uptake directly from the ambient water, through the gill membrane or other external body surfaces.]

. . .

"Category one waters" means those waters designated in the tables in N.J.A.C. 7:9B-1.15(c) through [(g)]**(i)**, for purposes of implementing the antidegradation policies set forth at N.J.A.C. 7:9B-1.5(d), for protection from measurable changes in water quality based on exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s) to protect their aesthetic value (color, clarity, scenic setting) and ecological integrity (habitat, water quality, and biological functions).

. . .

"DRBC Water Quality Regulations" means the DRBC Administrative Manual – Part III Water Quality Regulations dated September 27, 2006 including all amendments and supplements thereto.

. . .

["Flow-through bioassay" means a toxicity test in which the test solutions flow into and out of the test chambers on a once-through basis for the duration of the test, in accordance with N.J.A.C. 7:18.]

. . .

"FW1" means those fresh waters, as designated in N.J.A.C. 7:9B-1.15[(h) Table 6]**(j)**, that are to be maintained in their natural state of quality (set aside for posterity) and not subjected to any man-made wastewater discharges or increases in runoff from anthropogenic activities. These waters are set aside for posterity because of their clarity, color, scenic setting, other characteristic

of aesthetic value, unique ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s).

. . .

["Limiting nutrient" means a nutrient whose absence or scarcity exerts a restraining influence upon an aquatic biological population.]

. . .

"Nontrout waters" means fresh waters that have not been designated in N.J.A.C. 7:9B-1.15[(b)]**(c)** through [(h)]**(i)** as trout production or trout maintenance. These waters are generally not suitable for trout because of their physical, chemical, or biological characteristics, but are suitable for a wide variety of other fish species.

. . .

"Pinelands waters" means all waters within the boundaries of the Pinelands Area, except those waters designated as FW1 in N.J.A.C. 7:9B-1.15[(h) Table 6]**(j)**, as established in the Pinelands Protection Act (N.J.S.A. 13:18A-1 et seq.) and shown on Plate 1 of the "Comprehensive Management Plan" adopted by the New Jersey Pinelands Commission in November 1980.

. . .

"Shellfish waters" means waters classified as Approved, Seasonally Approved, Special Restricted, Seasonally Special Restricted or Condemned [that support or possess the potential to support shellfish which are within the Coastal Area Facility Review Act (C.A.F.R.A.) zone as delineated in 1973, (excluding: 1 - The Cohansey River upstream of Brown's Run; 2 - The Maurice River upstream of Route 548; 3 - The Great Egg Harbor River upstream of Powell Creek; 4 - The Tuckahoe River upstream of Route 50; 5 - The Mullica River upstream of the Garden State Parkway) plus the adjacent areas between Route 35 (from its juncture with the C.A.F.R.A. zone just north of Red Bank to its juncture with the C.A.F.R.A. zone just south of Keyport) and the C.A.F.R.A. zone and the area from the C.A.F.R.A. zone on the south

northwesterly along Route 35 to the northern shore of the Raritan River, then easterly along the northern shore of the Raritan River to the southeast point of Perth Amboy, then due east to the New Jersey jurisdictional limit, and seaward along the jurisdictional limit to the Atlantic Ocean]**in accordance with the Shellfish Growing Water Classification rules N.J.A.C. 7:12**.

. . .

"Site-specific criteria" means an alternative criterion established, at N.J.A.C. 7:9B-1.14(g), in place of an existing Statewide criterion, to protect existing or designated uses for specified waterbody(ies).

. . .

"Surface water classifications" means names assigned by the Department as set forth at N.J.A.C. 7:9B-1.15[(b)]**(c)** through [(h)]**(j)** to waters having the same designated uses and water quality criteria (for example, FW1, PL, FW2-NT, SE1, SC[, Zone 1C]).

. . .

["Thermocline" means the plane of maximum rate of change in temperature with respect to depth.]

. . .

"Trout maintenance waters" means waters designated at N.J.A.C. 7:9B-1.15[(b)]**(c)** through [(g)]**(i)** for the support of trout throughout the year.

"Trout production waters" means waters designated at N.J.A.C. 7:9B-1.15[(b)]**(c)** through [(g)]**(i)** for use by trout for spawning or nursery purposes during their first summer.

. . .

"Watershed-specific translators" means numeric translators developed, as part of a total maximum daily load (TMDL) in accordance with N.J.A.C. 7:15-6, to demonstrate

compliance with narrative criteria pursuant to N.J.A.C. 7:9B-1.14(d)5i. to protect existing or designated uses for specified watershed(s).

. . .

7:9B-1.5 Statements of policy

(a) General policies are as follows:

1. - 7. (No change.)

8. The Department encourages the use of reclaimed water for beneficial reuse to help preserve the highest quality water and reduce the export of freshwater out of basins in support of meeting water supply needs and natural resource protection.

9. Integrated Water Quality Monitoring and Assessment Methods developed pursuant to N.J.A.C. 7:15-6.2 shall be used to identify whether waterbodies meet water quality standards as required by Section 303(d) of the Federal Clean Water Act.

(b) (No change.)

(c) General technical policies are as follows:

1. – 5. (No change.)

6. [Unless a metal translator is developed based on a site-specific water quality study or approved by USEPA as part of a watershed study or TMDL, the following metal translators shall be used for developing effluent limitations or expressing aquatic life criteria in the equivalent total recoverable form:

	Name of the Metal	Freshwater Acute	Freshwater Chronic	Saline Acute	Saline Chronic
i.	Arsenic	1.0	1.0	1.0	1.0
ii.	Cadmium	0.944*	0.909*	0.994	0.994
iii.	Chromium III	0.316	0.860	N/A	N/A

iv.	Chromium VI	0.982	0.962	0.993	0.993
v.	Copper	0.960	0.960	0.83	0.83
vi.	Lead	0.791*	0.791*	0.951	0.951
vii.	Mercury	0.85	N/A	0.85	N/A
viii.	Nickel	0.998	0.997	0.990	0.990
ix.	Selenium	N/A	N/A	0.998	0.998
x.	Silver	0.85	N/A	0.85	N/A
xi.	Zinc	0.978	0.986	0.946	0.946

Conversion factors for cadmium and lead are hardness dependent. Values shown are at a hardness of 100 mg/L of calcium carbonate.

Cadmium Acute Metal Translator = 1.136672-[ln(hardness)(0.041838)]

Cadmium Chronic Metal Translator = 1.101672-[ln(hardness)(0.041838)]

Lead Acute and Chronic Metal Translator = 1.46203-[ln(hardness)(0.145712)]

N/A Not applicable]

When the Department promulgates a new or revised maximum contaminant level (MCL) in the Safe Drinking Water Act rules at N.J.A.C. 7:10 for a parameter for which there is an established human health based criterion at N.J.A.C. 7:9B-1.14(f)7, the Department shall modify the human health based criterion based on the toxicity factor used to establish the MCL and shall incorporate the modified criterion into N.J.A.C. 7:9B-1.14(f)7. The Department shall publish a notice of administrative change in the New Jersey Register.

7. (No change.)

8. Temperature criteria at N.J.A.C. 7:9B-1.14(d) apply unless an alternative effluent limitation is approved in accordance with Section 316(a) of the Clean Water Act, 33 U.S.C. 1326(a).

i. Properly treated wastewater discharge shall be deemed in compliance with the temperature criteria if the ambient stream temperature measured outside the regulatory heat dissipation area does not increase by more than:

(1) 0.6 degrees Celsius [(one degrees Farenheit)]**(1.1 degrees Fahrenheit)** in FW2-TP waters

(2) [1.1] **1.2** degrees Celsius [(two degree Farenheit)]**(2.2 degrees Fahrenheit)** in FW2-TM waters

(3) 2.8 degrees Celsius [(five degrees Farenheit)]**(5.0 degrees Fahrenheit)** in FW2-NT waters

(4) 2.2 degrees Celsius [(four degrees Farenheit]**(4.0 degrees Fahrenheit**) in SE and SC waters from September through May

(5) 0.8 degrees Celsius (1.5 degrees [Farenheit]**Fahrenheit**) in SE and SC waters from June through August

ii. (No change.)

(d) Antidegradation policies **applicable to all surface waters of the State** are as follows:

1. [These antidegradation policies apply to all surface waters of the State.]**Existing uses shall be maintained and protected. Designated uses shall be maintained or, as soon as technically and economically feasible, be attained wherever these uses are not precluded by natural conditions.**

[2]**i.** [Existing uses shall be maintained and protected. Designated uses shall be maintained or, as soon as technically and economically feasible, be attained wherever these uses are not precluded by natural conditions.] **The maintenance, migration, and, as appropriate, propagation of threatened or endangered species (as defined under the Federal Endangered Species Act of 1973 as amended, 16 U.S.C. 1531 *et seq*., and/or the New Jersey Endangered and Nongame Species Conservation Act N.J.S.A. 23:2A-1 et seq.) is considered an existing use that must be maintained.**

[3. - 4.]**ii. - iii.** (No change in text.)

[5. Where water quality exceeds levels necessary to support the designated uses, including but not limited to, propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the Department finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the Department's continuing planning process as set forth in the Statewide Water Quality Management Plan (see N.J.A.C. 7:15), which includes, but is not limited to, the NJPDES Regulations (N.J.A.C. 7:14A), that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

6. These antidegradation policies shall be applied as follows:

i. The quality of Nondegradation waters shall be maintained in their natural state (set aside for posterity) and shall not be subject to any manmade wastewater discharges. The Department shall not approve any activity which, alone or in combination with any other activities, might cause changes, other than toward natural water quality, in the existing surface water quality characteristics.

ii. For Pinelands waters, the Department shall not approve any activity which alone or in combination with any other activities, might cause changes, other than toward natural water quality, in the existing surface water quality characteristics. This policy shall apply as follows:

(1) This policy is not intended to interfere with water control in the operation of cranberry bogs or blueberry production.

(2) Dischargers holding valid NJPDES permits as of May 20, 1985, shall be allowed to continue discharging under the terms of their existing NJPDES permits provided that the discharge is not creating any water quality problems and that the designated uses are being attained. If a water quality problem has been created or the designated uses are not being attained, the NJPDES permit shall be modified to eliminate the water quality problem or attain the designated uses.

(3) Existing dischargers shall be subject to all the provisions of this subchapter when they apply for modification or expansion of their existing discharge.

iii. Category One Waters shall be protected from any measurable changes (including calculable or predicted changes) to the existing water quality. Water quality characteristics that are generally worse than the water quality criteria, except as due to natural conditions, shall be improved to maintain or provide for the designated uses where this can be accomplished without adverse impacts on organisms, communities or ecosystems of concern.

iv. For Category Two Waters, water quality characteristics that are generally better than, or equal to, the water quality standards shall be maintained within a range of quality that shall protect the existing/designated uses, as determined by studies acceptable to the Department, relating existing/designated uses to water quality. Where such studies are not available or

are inconclusive, water quality shall be protected from changes that might be detrimental to the attainment of the designated uses or maintenance of the existing uses. Water quality characteristics that are generally worse than the water quality criteria shall be improved to meet the water quality criteria.

7. Where a lower classification of water (including the different antidegradation waters) may impinge upon a higher classification of water the Department shall ensure that the quality and uses of the higher classification water are protected.

8. A waterway or waterbody from which raw water is transferred to another waterway or waterbody shall be treated as a tributary to the waterway or waterbody receiving the transferred water.

9. Modifications of water quality-based effluent limitations established to implement this antidegradation policy may be granted pursuant to N.J.A.C. 7:9B-1.8 and 1.9.]

iv. Where water quality exceeds levels necessary to support the designated uses, including but not limited to, propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the Department finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the Department's continuing planning process as set forth in the Statewide Water Quality Management Plan (see N.J.A.C. 7:15), which includes, but is not limited to, the NJPDES Regulations (N.J.A.C. 7:14A), that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

v. Where a lower classification of water (including the antidegradation designation) may impinge upon a higher classification/antidegradation designation of water, the Department shall ensure that the quality and uses of the higher classification/antidegradation water are protected.

vi. A waterway or waterbody from which raw water is transferred to another waterway or waterbody shall be treated as a tributary to the waterway or waterbody receiving the transferred water.

vii. Modifications of water quality-based effluent limitations established to implement the antidegradation policy may be granted pursuant to N.J.A.C. 7:9B-1.8 and 1.9.

2. Antidegradation policies applicable to a waterbody are as follows:

i. The quality of nondegradation waters shall be maintained in their natural state (set aside for posterity) and shall not be subject to any manmade wastewater discharges. The Department shall not approve any activity which, alone or in combination with any other activities, might cause changes, other than toward natural water quality, in the existing surface water quality characteristics.

ii. For Pinelands waters, the Department shall not approve any activity which alone or in combination with any other activities, might cause changes, other than toward natural water quality, in the existing surface water quality characteristics. This policy shall apply as follows:

(1) This policy is not intended to interfere with water control in the operation of cranberry bogs or blueberry production.

(2) New or expanded discharges are not allowed, unless authorized by the Pinelands Commission in accordance with Pinelands Comprehensive Management Plan, N.J.A.C. 7:50-4.61 through 4.70.

iii. Category One Waters shall be protected from any measurable changes (including calculable or predicted changes) to the existing water quality. Water quality characteristics that are generally worse than the water quality criteria, except as due to natural conditions, shall be improved to maintain or provide for the designated uses where this can be accomplished without adverse impacts on organisms, communities, or ecosystems of concern.

iv. For Category Two Waters, water quality characteristics that are generally better than, or equal to the water quality standards shall be maintained within a range of quality that shall protect the existing/designated uses as determined by studies acceptable to the Department, relating existing/designated uses to water quality. Where such studies are not available or are inconclusive, water quality shall be protected from changes that might be detrimental to the attainment of the designated

uses or maintenance of the existing uses. Water quality characteristics that are generally worse than the water quality criteria shall be improved to meet the water quality criteria.

v. For waters of mainstem of the Delaware River designated as Special Protection Waters pursuant to the DRBC Water Quality Regulations Article 3 Section 3.10.3A2, the antidegradation policies are as specified in the DRBC Water Quality Regulations.

(e) Water quality-based effluent limitation policies are as follows:

1. – 3. (No change.)

4. When a discharge is made to a tidal waterway in the reach where the salinity varies from less than 3.5 ppt. to greater than 3.5 ppt., or the salinity data are inconclusive, the Department shall establish as water quality-based effluent limitations the more stringent of the limitations, on a parameter specific basis, required for the upstream[,] FW[,] waters or the downstream[,] SE[,] waters.

5. – 7. (No change.)

(f) [Bioassay and biomonitoring policies are as follows:] **Whole Effluent Toxicity Requirements shall be established for NJPDES point sources in accordance with N.J.A.C. 7:14A–13.6(d).**

[1. Bioassay test species selection criteria follow:

i. The objective of the Department is to use test species for toxicity testing bioassays that are representative of the more sensitive aquatic biota from the different trophic levels of the waters in question.

ii. Test species need not be indigenous to, nor occur in the waters in question.

iii. When the bioassay test protocol being utilized falls under the scope of N.J.A.C. 7:18 the Department shall designate the approved representative species considered to be the most sensitive to the discharge.

2. Acute definitive bioassay tests, in accordance with N.J.A.C. 7:18, will normally be utilized in determining the toxicity of a discharge to the aquatic biota.

3. The Department, in order to further characterize the toxicity of a discharge, may allow or require the use of other procedures including, but not limited to:

i. Bioaccumulation testing;
ii. Mutagenicity testing; and
iii. Measures of the structure and function of the aquatic community in the receiving waters.

4. Parameter specific water quality criteria for toxic substances in a waterbody may be established by the Department when adequate data, from appropriate bioassays or scientific literature, are available as follows:

i. Appropriate bioassays, for purposes of this policy, shall include both acute definitive and chronic definitive bioassays; and

ii. The amount of bioassay data or scientific literature needed to support adoption of a parameter specific criterion in a given waterbody will be determined by the Department on a case-by-case basis.]

(g) Nutrient policies are as follows:

1. (No change.)

2. Except as due to natural conditions, nutrients shall not be allowed in concentrations that [cause]**render the waters unsuitable for the existing or designated uses due to** objectionable algal densities, nuisance aquatic vegetation, abnormal diurnal fluctuations in dissolved oxygen or pH, changes to the composition of aquatic ecosystems, [or otherwise render the waters unsuitable for the designated uses]**or other indicators of use impairment caused by nutrients**.

3. The Department may [establish]**develop** watershed**-specific translators** or site-specific [water quality] criteria **through a Total Maximum Daily Load (TMDL). Site specific criteria shall be incorporated at N.J.A.C.7:9B-1.14(g) as specified at N.J.A.C. 7:9B-1.5(c)6iii.** [for nutrients in lakes, ponds, reservoirs or streams, in addition to or in place of the criteria in N.J.A.C. 7:9B-1.14 when necessary to protect existing or designated uses. Such criteria shall become part of these Water Quality Standards.]

4. The Department shall establish water quality based effluent limits for nutrients, in addition to or more stringent than[,] the effluent standard in N.J.A.C. [7:9-5.7]**7:14A-5.3**, as

necessary to meet [the quality criteria.]**a wasteload allocation established through a TMDL, or to meet the criteria at N.J.A.C. 7:9B-1.14(d)5ii or iii, where the Department has determined that nutrients render the waters unsuitable pursuant to N.J.A.C. 7:9B-1.14(d)5i.**

5. Activities resulting in the [non-point]**nonpoint** discharge of nutrients shall implement the best management practices determined by the Department to be necessary to protect the existing or designated uses.

[6. The Department may allow or require the use of algal biostimulation assays, to determine the limiting nutrient in a lake, pond, reservoir or stream.]

(h) A permittee may request that a regulatory mixing zone be established by the Department for applicable criteria except as otherwise provided in this section. Regulatory mixing zones may be evaluated as part of the development of water quality-based effluent limitation(s) to provide for the initial dispersion of the effluent in the receiving water body at or near the discharge point.

1. – 4. (No change.)

5. Regulatory mixing zones are prohibited as follows:

i. For indicators of pathogenic quality, including fecal coliform**, E. Coli,** and enterococci;

ii. – viii. (No change.)

7:9B-1.6 Establishment of water quality-based effluent limitations

(a) [For Category One waters, as defined in N.J.A.C. 7:9B-1.4, water quality-based effluent limitations shall be assigned to a point source discharge so as to protect the existing water quality from any calculable changes. The Department shall establish water quality-based effluent limitations, as appropriate, for those parameters contained in N.J.A.C. 7:9B-1.14, as well as any other parameters the Department believes may have a detrimental effect on the designated or existing uses.]**Water quality based effluent limitations shall be established for NJPDES point sources in accordance with N.J.A.C. 7:14A.**

(b) [For Category Two waters, as defined in N.J.A.C. 7:9B-1.4, draft water quality-based effluent limitations shall be assigned to a point source discharge so as to:] **For new and/or expanding NJPDES point sources, the water quality based effluent limitations shall comply with the antidegradation policies at N.J.A.C. 7:9B-1.5(d) above.**

[1. Maintain water quality characteristics that are generally better than or equal to the water quality standards at a level that will protect the existing and designated uses; and

2. Bring water quality characteristics that are generally worse than the water quality criteria, except as due to natural conditions, up to the water quality criteria or to levels corresponding with wasteload allocations established pursuant to N.J.A.C. 7:15-7.6.]

(c) (No change.)

(d) The Department may authorize compliance schedules in accordance with individual NJPDES permits to allow the permittee time to comply with new effluent limitations.

7:9B-1.8 Procedures for modifying water quality-based effluent limitations for individual dischargers to Category One waters

(a) – (b) (No change.)

[(c) In no case shall changes to water quality be allowed in Outstanding National Resource Waters.

(d) Modified effluent limitations may be granted for a time period not to exceed three years or the time period of the permit in which the modified effluent limitations appear, whichever is shorter.]

[(e)]**(c)** (No change in text.)

[(f)]**(d)** (No change in text.)

7:9B-1.9 Procedures for modifying water quality-based effluent limitations for individual dischargers to Category Two waters.

(a) – (b) (No change.)

[(c) Modified effluent limitations may be granted for a time period not to exceed three years or the time period of the permit in which the modified effluent limitations appear, whichever is shorter.]

[(d)]**(c)**(No change.)

7:9B-1.12 Designated uses of FW1, PL, FW2, SE1, SE2, SE3, and SC waters

(a) In all FW1 waters the designated uses are:

1. (No change.)

2. Primary [and secondary]contact recreation;

3. - 4. (No change.)

(b) In all PL waters the designated uses are:

1. – 3. (No change.)

4. Primary [and secondary]contact recreation; and

5. (No change.)

(c) In all FW2 waters the designated uses are:

1. (No change.)

2. Primary [and secondary]contact recreation;

3. – 5. (No change.)

(d) In all SE1 waters the designated uses are:

1. – 2. (No change.)

3. Primary [and secondary] contact recreation; and

4. (No change.)

(e) - (f) (No change.)

(g) In all SC waters the designated uses are:

1. (No change.)

2. Primary [and secondary] contact recreation;

3. – 4. (No change.)

7:9B-1.13 Designated uses of mainstem Delaware River and Delaware Bay

(a) The designated uses for the mainstem Delaware River and Delaware Bay are those contained in ["Delaware River Basin Commission, Water Quality Regulations, Administrative Manual - Part III," Article 3, dated October 23, 1996, including all amendments and future supplements thereto]**the DRBC Water Quality Regulations**.

(b) The designated uses for other waters under the jurisdiction of the DRBC are as set forth at N.J.A.C. 7:9B-[1.15(d)]**1.12**.

7:9B-1.14 Surface water quality criteria

(a) - (c) (No change.)

(d) Surface Water Quality Criteria for FW2, SE and SC Waters:

1. – 2. (No change.)				
3.	Floating, colloidal, color and settleable solids; petroleum hydrocarbons and other oils and grease	i.	None noticeable in the water or deposited along the shore or on the aquatic substrata in quantities detrimental to the natural biota. None which would render the waters unsuitable for the designated uses[; and]**.**	(No change.)
		[ii.	For "Petroleum Hydrocarbons" the goal is none detectable utilizing the Federal EPA Environmental Monitoring and Support Laboratory Method (Freon Extractable - Silica Gel Adsorption - Infrared Measurement); the present criteria, however, are those of paragraph i above.]	[All Classifications]
4.	pH (Standard Units)	i.	6.5-8.5	FW2 **waters listed at 1.15(d), (f), (g) and (i),** All SE
		ii.	**4.5 – 7.5**	**FW2 waters listed at 1.15(c), (e), and (h)**
		[ii] **iii**.	Natural pH conditions shall prevail.	SC

5.	Phosphorus, Total (mg/L)	**i.**	**Concentrations shall not render the waters unsuitable for the existing or designated uses. If the Department determines that concentrations render the waters unsuitable for the existing or designated uses; due to objectionable algal densities, nuisance aquatic vegetation, abnormal diurnal fluctuations in dissolved oxygen or pH, changes to the composition of aquatic ecosystems, or other indicators of use impairment; criteria in ii or iii below apply; unless watershed-specific translators are established pursuant to N.J.A.C. 7:9B-1.5(g)3.**	**FW2**
		[i]**ii**.	Lakes: Phosphorus **concentrations** [as total P]shall not exceed 0.05 **mg/L as Total P** in any lake, pond or reservoir, or in a tributary at the point where it enters such bodies of water[, except where watershed or site-specific criteria are developed pursuant to N.J.A.C. 7:9B-1.5(g)3].	FW2

	[ii]**iii**. **Non-tidal** Streams: [Except as necessary to satisfy the more stringent criteria in paragraph i above or where watershed or site-specific criteria are developed pursuant to N.J.A.C 7:9B-1.5(g)3, phosphorus as total P]**Phosphorus concentrations** shall not exceed 0.1 [in any stream, unless it can be demonstrated that total P is not a limiting nutrient and will not otherwise render the waters unsuitable for the designated uses]**mg/L as Total P**.	FW2
6. – 10. (No change.)		
11. Temperature	[(i)]**i.** No thermal alterations which would cause temperatures to exceed **a daily maximum of** [20]**22** degrees Celsius ([68]**71.6** degrees Fahrenheit) [Summer seasonal average]**or rolling seven-day average of the daily maximum of 19 degrees Celsius (66.2 degrees Fahrenheit), unless due to natural conditions**	FW2-TP[, FW2-TM]

[(ii)]**ii**.	No thermal alterations which would cause temperatures to exceed **a daily maximum of** [27.8]**25** degrees Celsius ([66.2]**77** degrees Fahrenheit) [Summer seasonal average]**or rolling seven-day average of the daily maximum of 23 degrees Celsius (71.6 degrees Fahrenheit) , unless due to natural conditions**	[FW2-NT (small mouth bass and yellow perch waters)]**FW2-TM**
[(iii)]**iii**.	No thermal alterations which would cause temperatures to exceed **a daily maximum of** [30]**31** degrees Celsius ([86]**87.8** degrees Fahrenheit) [Summer seasonal average]**or rolling seven-day average of the daily maximum of 28 degrees Celsius 82.4 degrees Fahrenheit), unless due to natural conditions**	[All other] **FW2-NT**
[(iv)]**iv.**	(No change in text.)	(No change.)
[(v)]**v.**	(No change in text.)	(No change.)

12. – 13. (No change.)

(e) (No change.)

(f) Surface Water Quality Criteria for Toxic Substances are as follows:

1. – 6. (No change.)

7. SURFACE WATER QUALITY CRITERIA FOR TOXIC SUBSTANCES:
(μg/L)

Toxic Substance	CAS Number	Fresh Water (FW2) Criteria			Saline Water (SE & SC) Criteria		
		Aquatic		Human Health	Aquatic		Human Health
		Acute	Chronic		Acute	Chronic	
. . .							
Cyanide (Total)	57-12-5	22(fc)	5.2(fc)	140(h)	[1.0]**2.7**(fc)	[1.0]**2.7**(fc)	140(h)
. . .							

(g) Site-specific surface water quality criteria listed below apply to specific waterbodies that supersede the State-wide criteria listed at (d) through (f) above. **Any site-specific criterion developed through a Total Maximum Daily Load (TMDL) adopted as an amendment to the Statewide Water Quality Management Plan or the applicable Areawide Water Quality Management Plan in accordance with N.J.A.C. 7:15-6.4 shall be incorporated into this section. The Department shall publish a notice of administrative change in the New Jersey Register.**

(h) Surface water quality criteria for waters under the jurisdiction of the DRBC:

1. Mainstem Delaware River and Delaware Bay:

i. For parameters with criteria in ["Delaware River Basin Commission, Administrative Manual - Part III, Water Quality Regulations," Article 3, dated October 23, 1996, including all amendments and future supplements thereto]**the DRBC Water Quality Regulations**, the criteria contained therein are the applicable criteria.

ii. For parameters without criteria in ["Delaware River Basin Commission, Administrative Manual - Part III, Water Quality Regulations," Article 3, dated October 23, 1996, including all amendments and future supplements thereto]**the DRBC Water Quality Regulations**, the criteria at (c) above are the applicable criteria and shall be applied as follows:

(1) - (3) (No change.)

2. Tributaries to the mainstem Delaware River and Delaware Bay:

i. The applicable criteria are those contained in ["Delaware River Basin Commission, Administrative Manual - Part III, Water Quality Regulations," Article 3, dated October 23, 1996, including all amendments and supplements thereto]**the DRBC Water Quality Regulations**; or

ii. (No change.)

3. For all waters under the jurisdiction of the DRBC where criteria are not established in ["Delaware River Basin Commission, Administrative Manual - Part III, Water Quality Regulations," Article 3, dated October 23, 1996, including all amendments and future supplements thereto]**the DRBC Water Quality Regulations**, or at (c) above, the Department shall use criteria based upon the best available scientific information, in accordance with (d)1ii above and N.J.A.C. 7:9B-1.5(c)5, to establish water quality-based effluent limitations.

7:9B-1.15 Surface water classifications for the waters of the State of New Jersey

(a) This section contains the surface water classifications for the waters of the State of New Jersey. Surface water classifications are presented in tabular form. Subsections (c) through [(g)]**(i)** contain surface water classifications by major drainage basin. Subsection [(h)]**(j)** lists FW1 waters by tract within basins and subsection [(i)]**(k)** identifies the Outstanding National Resource Waters of the State. **Interstate waters of the mainstem Delaware River are under the jurisdiction of the DRBC and the designations are contained in the DRBC Water Quality Regulations.**

(b) The following are instructions for the use of [Tables 1 through 5 found in] N.J.A.C. 7:9B-1.15(c) through [(g)]**(j)** below respectively:

1. The surface water classification [tables] **subsections** give the surface water classifications **and antidegradation designations** for waters of the State. [Surface waters of the State and their classification are listed in the table covering the major drainage basin in which they are located. The major drainage basins are:

i. The Atlantic Coastal drainage basin which contains the surface waters listed in Table 1 in (c) below;

ii. The Delaware River drainage basin which contains the surface waters listed in Table 2 in (d) below;

iii. The Passaic River, Hackensack River and New York Harbor Complex drainage basin which contains the surface waters listed in Table 3 in (e) below;

iv. The Raritan River and Raritan Bay drainage basin which contains the surface waters listed in Table 4 in (f) below; and

v. The Wallkill River drainage basin which contains the surface waters listed in Table 5 in (g) below.]

2. - 4. (No change.)

5. To find [unnamed] waterways or waterbodies [or named waterways or waterbodies] **not listed at N.J.A.C. 7:9B-1.15(c) through (i)** [which do not appear in the listing], use the following instructions:

i. – iv. (No change in text.)

v. [Unnamed or unlisted]**Unlisted** saline waterways and waterbodies are classified as SE1 in the Atlantic Coastal Basin. [Unnamed or unlisted]**Unlisted** saline waterways which enter SE2 or SE3 waters in the Passaic, Hackensack and New York Harbor Complex basin are classified as SE2 unless otherwise classified [within Table 3 in (e)]**in (f)** below. Freshwater portions of [unnamed or] unlisted streams entering SE1, SE2, or SE3 waters are classified as FW2-NT. This only applies to waters that are not PL waters (see (b)5vii below). If the waterbody or waterway could be a C1 water, also see (b)5vi below.

vi. [If the waterway or waterbody of interest flows through or is entirely located within State parks, forests or fish and game lands, Federal wildlife refuges, other special holdings, or is a State shellfish water as defined in this subchapter, those waterways or waterbodies should be checked to determine if the waterbody of interest is listed as a C1 water in the stream classification tables at N.J.A.C. 7:9B-1.15(c) through (g) below.] **All waterbodies that have been designated by the Department as Category One are specifically listed in 1.15(c) through (i).**

vii. All waterways or waterbodies, or portions of waterways or waterbodies, that are located within the boundaries of the Pinelands Area established at N.J.S.A. 13:18A-11a are classified as PL unless they are listed as FW1 waters in [Table 6 in (h)]**(j)** below. A tributary entering a PL stream is classified as PL only for those portions of the tributary that are within the Pinelands Area. Lakes are classified as PL only if they are located entirely within the Pinelands Area.

6. The following 10 classifications are used for the sole purpose of identifying the water quality classification of the waters listed in the tables in (c) through [(h)]**(j)** below:

i. "FW1" means those fresh waters, as designated in N.J.A.C. 7:9B-1.15[(h) Table 6]**(j)**, and as defined at N.J.A.C. 7:9B-1.4.

ii. – x. (No change.)

7. The following water quality designations are used in [Tables 1 through 5 in](c) through [(g)]**(i)**, respectively, below:

i. – iii. (No change.)

(c) The **following** surface water classifications [in Table 1] are for waters of the Atlantic Coastal Basin:

[TABLE 1]

Waterbody	Classification
. . .	
ABSECON CREEK	
(Egg Harbor) (No change.)	
(Absecon) – Boundary of the Pinelands Protection and Preservation Area to Mill Road Dam	**FW2-NT**
(Absecon) – [Entire length, except portions described above]**Mill Road Dam to Absecon Bay, except portions within Absecon Wildlife Management Area**	[FW2-NT/]SE1
. . .	
BOG BRANCH CREEK (Middletown) - Entire length**, except portions within the Pinelands Protection and Preservation Area**	SE1(C1)
(Middletown) - Portions within the Pinelands Protection and Preservation Area	**PL**
BRIGANTINE (Edwin B. Forsythe National Wildlife Refuge) - All waters within the boundaries of the Edwin B. Forsythe National Wildlife Refuge**, except portions of Cedar Creek and Cedar Run**	FW2-NT/SE1(C1)

. . .

CEDAR CREEK

(Cedar Crest) (No change.)

(Berkeley) - Garden State Parkway to [Barnegat Bay]**US Highway 9, except portions within Edwin B. Forsythe National Wildlife Refuge** FW2-NT[/SE1]

(Berkeley) – Portions within Edwin B. Forsythe National Wildlife Refuge FW2-NT(C1)

(Berkeley) - US Highway 9 to Barnegat Bay, except portions within Edwin B. Forsythe National Wildlife Refuge FW2-NT/SE1

(Greenwood Forest) (No change.)

(Greenwood Forest) (No change.)

(Greenwood Forest) (No change.)

. . .

CEDAR RUN

(Stafford) (No change.)

(Cedar Run) - Garden State Parkway to [the boundaries of the Barnegat National Wildlife Refuge]**US Highway 9, except portions within Edwin B. Forsythe National Wildlife Refuge** FW2-NT[/SE1]

(Cedar Run) – portions within Edwin B. Forsythe National Wildlife Refuge upstream of US Highway 9 FW2-NT(C1)

(Cedar Run) - US Highway 9 to the boundaries of the Barnegat National Wildlife Refuge, except portions within Edwin B. Forsythe National Wildlife Refuge FW2-NT/SE1

(Cedar Run) – portions within Edwin B. Forsythe National Wildlife Refuge downstream of US Highway 9	**FW2-NT/SE1(C1)**
(Barnegat) - National Wildlife Refuge boundaries to Barnegat Bay	FW2-NT/SE1(C1)

. . .

GREAT EGG HARBOR RIVER	
(Berlin) (No change.)	
(Berlin) (No change.)	
(Winslow) (No change.)	
(Mays Landing) – Rt. 40 bridge to Great Egg Harbor, except those tributaries described separately below	[FW2-NT/]SE1
(Mays Landing) (No change.)	
(Egg Harbor) - Tributaries and all other waters within MacNamara Wildlife Management Area, except tributary described below	[FW2-NT/]SE1(C1)
(Tuckahoe) (No change.)	

. . .

MIRY RUN	
(Thelma) – Source to boundaries of the Pinelands Protection and Preservation Area	**PL**
(Catowba) – Boundaries of the Pinelands Protection and Preservation Area to Thelma Ave.	**FW2-NT**
(Catowba) – Thelma Ave. to Great Egg Harbor River	**FW2-NT/SE1**

. . .

TOMS RIVER	
MAIN STEM	
(Holmeson) (No change.)	
(Cassville) – Cassville Road bridge to the Route 528 bridge**, including all tributaries**	FW2-NT(C1)
(Whitesville) - (Toms River) (No change.)	
TRIBUTARIES, TOMS RIVER (No change.)	

. . .

WRANGEL BROOK
(Whiting) (No change.)
(Manchester) – Green Branch to the confluence with [Michaels Branch]**Davenport Branch, except portions within the boundaries of the Pinelands Protection and Preservation Area** FW2-NT
(Berkeley) – [Michaels Branch]**Davenport Branch** to Toms River[, except portions within the boundaries of the Pinelands Protection and Preservation Area] FW2-NT/SE1

. . .

(d) The **following** surface water classifications [in Table 2] are for waters of the **Upper** Delaware River Basin:

[TABLE 2]

Waterbody	**Classification**
. . .	
[ALLOWAY CREEK (Alloways) – Entire length	FW2-NT/SE1]
. . .	
[ASSISCUNK CREEK	
(Columbus) - Headwaters to confluence with Barkers Brook, including all tributaries	FW2-NT(C1)
(Burlington) - Confluence with Barkers Brook to the Delaware River	FW2-NT]
. . .	
[BALDRIDGE CREEK	

(Salem Creek) - Entire length, except segments described below	FW2-NT/SE1(C1)
(Salem Creek) - Segments outside the boundaries of the Supawna National Wildlife Refuge	FW2-NT/SE1]

. . .

[BAY PONDS (Egg Island)	FW2-NT/SE1(C1)
BEADONS CREEK (Fortescue) - Entire length	SE1(C1)]

. . .

BEAVER BROOK (Hope) - Entire length**, except tributary described below**	FW2-NT
(East of Mununka Chunk) – Entire length, including all tributaries	**FW2-TM**

. . .

[BEAVERDAM BRANCH	
(Glassboro) - Source to boundary of the Glassboro Wildlife Management Area	FW2-NT
(Glassboro) - Within the boundaries of Glassboro Wildlife Management Area	FW2-NT(C1)]

. . .

[BIG TIMBER CREEK (Westville) - Entire length	FW2-NT
BLACKBIRD GUT (Newport) - Entire length	SE1(C1)
BLACKS CREEK (Bordentown) - Entire length	FW2-NT]

. . .

[BOILER DITCH (Egg Island) - Entire length	FW2-NT/SE1(C1)]

. . .

[BUCKS DITCH (Mad Horse Creek) - Entire length	SE1(C1)
BUCKSHUTEM CREEK	
(Centre Grove) - Entire length, except segments described separately below	FW2-NT

(Edward G. Bevan) - Creek and tributaries within the boundaries of Edward G. Bevan Wildlife Management Area, except those tributaries described separately below	FW2-NT(C1)
(Edward G. Bevan) - Joshua and Pine Branches to their confluence with Buckshutem Creek	FW1
CAT GUT (Mad Horse Creek) - Entire length	SE1(C1)
CEDAR BRANCH (Manumuskin River) - Source to Manumuskin River	FW1
CEDAR BRANCH (Edward G. Bevan) - Entire length	FW1
CEDAR BRANCH (Edward G. Bevan) - See NANTUXENT CREEK	
CEDAR CREEK	
(Dividing Creek Station) - Entire length, except portions described separately below	FW2-NT
(Edward G. Bevan) - Those tributaries to Cedar Creek that originate in and are located entirely within the boundaries of Edward G. Bevan Wildlife Management Area	FW1
CEDARVILLE POND (Cedarville)	FW2-NT(C1)
CHERRY TREE CREEK (Mad Horse Creek) - Entire length	SE1(C1)
CLARKS POND (Bridgeton)	FW2-NT(C1)]

. . .

[CLINT MILLPOND (Beaver Swamp)	FW2-NT(C1)]

. . .

[COHANSEY RIVER (Bridgeton) – Entire length	FW2-NT/SE1
COOPER BRANCH - See RANCOCAS CREEK	
COOPER RIVER (Camden) - Entire length	FW2-NT]

. . .

[COURTENY PONDS (Egg Island)	FW2-NT/SE1(C1)]

. . .

[CROSSWICKS CREEK (Bordentown) - Entire length	FW2-NT
CROW CREEK (S. Dennis) - Entire length	FW2-NT/SE1(C1)]

. . .

[DEER PARK BRANCH - See RANCOCAS CREEK]

. . .

[DELAWARE RIVER	
MAIN STEM (Interstate Waters - Classifications from Delaware River Basin Commission (DRBC)) (State Line) - That portion of DRBC's Zone 1C from the New York-New Jersey state line to the proposed axis of the Tocks Island Dam at River Mile 217.0	Zone 1C
(Tocks Island) - Proposed axis of Tocks Island Dam at River Mile 217.0 to the mouth of the Lehigh River at Easton, Pennsylvania, at River Mile 183.66	Zone 1D
(Easton, Pa.) - Mouth of the Lehigh River at River Mile 183.66, to the head of tide at the Trenton-Morrisville Toll Bridge, Trenton at River Mile 133.4	Zone 1E
(Trenton) - Head of tide at the Trenton-Morrisville Bridge, Trenton, River Mile 133.4 to below the mouth of Pennypack Creek, Pennsylvania at River Mile 108.4	Zone 2
(Philadelphia) - River Mile 108.4 to below the mouth of Big Timber Creek, New Jersey, at River Mile 95.0	Zone 3
(Gloucester) - River Mile 95.0 to the Pennsylvania-Delaware state line at River Mile 78.8	Zone 4
(Marcus Hook) - Pennsylvania-Delaware state line at River Mile 78.8 to Liston Pt., Delaware at River Mile 48.2	Zone 5
(Liston Point) - Delaware Bay from Liston Point, Delaware at River Mile 48.2 to River Mile 0.0 at the intersection of the centerline of the navigation channel and a line between Cape May Light and the tip of Cape Henlopen, Delaware	Zone 6(C1)]
[TRIBUTARIES,]DELAWARE RIVER **TRIBUTARIES**	
(Holland) - (Titusville) (No change.)	
[(Brooklawn) - Unnamed or unlisted direct tributaries, south of Big Timber Creek and north of Oldmans Creek, that are outside of the Pinelands Protection and Preservation Areas and are not mapped as C1 waters by the Department	FW2-NT/SE2
(Penns Grove) - Unnamed or unlisted direct tributaries, south of and including Oldmans Creek, that are outside of the Pinelands Protection and Preservation Areas and are not mapped as C1 waters by the Department	FW2-NT/SE1

(Pinelands) - All streams or segments of streams which flow directly into the Delaware River, are within the boundaries of the Pinelands Area and are not classified FW1 waters in this Table	PL]
[DENNIS CREEK	
(South Dennis) - Entire length, except segments described below	FW2-NT/SE1
(Woodbine) - All tributaries within the boundaries of the Pinelands Protection and Preservation Areas	PL
(Dennis Creek) - Segment of the Creek, all tributaries, and all other surface waters within the boundaries of the Dennis Creek Wildlife Management Area	FW2-NT/SE1(C1)
DEVILS GUT	
(Mad Horse Creek) - Entire length, except tributaries described below	SE1(C1)
(Mad Horse Creek) - Tributaries outside the Mad Horse Creek Wildlife Management Area	SE1
DIVIDING CREEK	
(Dividing Creek) – Entire length, except those segments described below	FW2-NT/SE1
(Edward G. Bevan) - Those segments of tributaries that are located entirely within the boundaries of the Edward G. Bevan Wildlife Management Area	FW1
DIVISION CREEK (Dix) - Entire length	SE1(C1)
DOCTORS CREEK	
(Red Creek) - Entire length, except segment described below	FW2-NT
(Imlaystown) - Segment within Imlaystown Lake Wildlife Management Area	FW2-NT(C1)]

. . .

[DRUMBO CREEK	
(Dix) - Entire length, except segment described below	FW2-NT/SE1
(Dix) - Segment within the boundaries of Dix Wildlife Management Area	FW2-NT/SE1(C1)]

. . .

[EAST CREEK	
(Dennis) - Source to boundaries of the Pinelands Protection and Preservation Area except those portions described separately below	PL

(Belleplain) - A stream and tributary that originate just south of East Creek Mill Rd., 1.2+miles north-northeast of Eldora and are located entirely within the boundaries of Belleplain State Forest	FW1
(Belleplain) - All tributaries to Lake Nummi from their origins downstream to the Lake	FW1
(Eldora) - Boundary of the Pinelands Protection and Preservation Area to Delaware Bay except segment described separately below	FW2-NT/SE1
(Dennis Creek) - Segment within the boundaries of the Dennis Creek Wildlife Management Area	FW2-NT/SE1(C1)
ELDER GUT (Egg Island) - Entire length	FW2-NT/SE1(C1)]

. . .

[FISHING CREEK (Egg Island) - Entire length	FW2-NT/SE1(C1)
FISHING CREEK	
(Canton) - Source to Mad Horse Creek Wildlife Management Area and all tributaries outside of the boundaries of Mad Horse Creek Wildlife Management Area	SE1
(Mad Horse Creek) - Creek and tributaries within the boundaries of Mad Horse Creek Wildlife Management Area	SE1(C1)]

. . .

[GOOSE POND (Mad Horse Creek)	SE1(C1)
GOSHEN CREEK	
(Woodbine) - Entire length except segment described below	SE1
(Dennis Creek) - Segment and all tributaries within the Dennis Creek Wildlife Management Area	SE1(C1)
GRAVELLY RUN (Edward G. Bevan) - Downstream to the Edward G. Bevan Wildlife Management Area boundaries	FW1]

. . .

[HIGBEE BEACH (Higbee Beach Wildlife Management Area) All waters within the boundaries of Higbee Beach Wildlife Management Area	FW2-NT/SE1(C1)
HIGHS BEACH (Highs Beach) - All waters within the Wildlife Management Area south of Highs Beach	FW2-NT/SE1(C1)]

. . .

[IMLAYSTOWN LAKE (Imlaystown)	FW2-NT(C1)]

. . .

[INDIAN DITCH (Egg Island) - Entire length	FW2-NT/SE1(C1)
ISLAND DITCH (Egg Harbor) - Entire length	FW2-NT/SE1(C1)]

. . .

[JADE RUN (Brendan T. Byrne State Forest) - Entire length	FW1
JOSHUA BRANCH - See BUCKSHUTEM CREEK	
KING POND (Egg Island)	SE1(C1)]

. . .

[LAHAWAY CREEK	
(Prospertown) - Entire length, except tributaries described separately below	FW2-NT
(Colliers Mills) - All tributaries which originate in the Colliers Mills Wildlife Management Area north-northeast of Archers Corners, from their sources to the boundaries of the Colliers Mills Wildlife Management Area	FW1]

. . .

[LITTLE EASE RUN	
(Glassboro) - Entire length, except portion described separately below	FW2-NT
(Glassboro) - Run and tributaries within the Glassboro Wildlife Management Area, except tributary described separately below	FW2-NT(C1)
(Glassboro) - The portion of a branch of Little Ease Run situated immediately north of Stanger Avenue, and entirely within the Glassboro Wildlife Management Area	FW1
(Glassboro) - The first and second easterly tributaries to Little Ease Run north of Academy Road	FW1]

. . .

[LOGAN POND (Repaupo)	FW2-NT(C1)]
. . .	
[LONG POND (Mad Horse Creek)	SE1(C1)
LONE TREE CREEK (Egg Island) - Entire length	SE1(C1)]
. . .	
[LOWER BROTHERS CREEK (Egg Island) - Entire length	SE1(C1)
LOWER DEEP CREEK (Mad Horse Creek) - Entire length	SE1(C1)]
. . .	
[MAD HORSE CREEK	
(Canton) - Source to the boundary of Mad Horse Creek Wildlife Management Area and all tributaries outside the boundaries of the Wildlife Management Area	FW2-NT/SE1
(Mad Horse Creek) - Creek and all waters within the Mad Horse Creek Wildlife Management Area	FW2-NT/SE1(C1)
MALAPATIS CREEK	
(Mad Horse Creek) - Entire length, except segment described below	SE1(C1)
(Mad Horse Creek) - Portions of the Creek beyond the boundaries of the Mad Horse Creek Wildlife Management Area	SE1
MANANTICO CREEK	
(Millville) - Entire length, except segment described below	FW2-NT
(Manantico) - Segment within the boundaries of the Manantico Ponds Wildlife Management Area	FW2-NT(C1)
MANTUA CREEK (Woodbury) - Entire length	FW2-NT/SE2]
. . .	
[MASON CREEK	
(Springville) - Entire length, except segment described below	FW2-NT
(Medford) - Segment within Medford Wildlife Management Area	FW2-NT(C1)
MASONS RUN	
(Pine Hill) - Source to Little Mill Rd.	FW2-TP(C1)

(Lidenwold) - Little Mill Rd. to confluence with Big Timber Creek	FW2-NT
MAURICE RIVER	
MAIN STEM	
(Willow's Grove) - Source to the boundary of the section of Union Lake Wildlife Management Area north of Vineland	FW2-NT
(Vineland) - Boundary of the Union Lake Wildlife Management Area to confluence with Blackwater Branch	FW2-NT(C1)
(Vineland) - Confluence with Blackwater Branch to Delaware Bay, except tributaries described under Tributaries below	FW2-NT/SE1
TRIBUTARIES, MAURICE RIVER	
(Willow's Grove) - Those portion of tributaries that are within the boundaries of the Pinelands Protection and Preservation Area	PL
(Vineland) - All tributaries within the boundaries of the Union Lake Wildlife Management Area and within the Wildlife Management Area that borders Delaware Bay	FW2-NT/SE1(C1)
MCCORMICK POND (Egg Island)	FW2-NT/SE1(C1)
MACDONALD BRANCH - See RANCOCAS CREEK]	

. . .

[MIDDLE BROTHERS CREEK (Egg Island) - Entire length	SE1(C1)
MIDDLE MARSH CREEK	
(Dix) - All fresh waters which originate in and are located entirely within the boundaries of the Dix Wildlife Management Area	FW1
MILE BRANCH - Entire length	FW1]

. . .

[MILL CREEK	
(Carmel) - Entire length, except segment described below	FW2-NT
(Union Lake) - Creek and tributaries within the boundaries of the Union Lake Wildlife Management Area	FW2-NT(C1)]

. . .

[MOUNT MISERY BROOK

(Woodmansie) - Entire length, except segments described below	PL
SOUTH BRANCH, MOUNT MISERY BROOK	
(Brendan T. Byrne State Forest) - All tributaries to the South Branch that are located entirely within the boundaries of Brendan T. Byrne State Forest	FW1
(Pasadena) - The two easterly branches of the Branch which are located entirely within the boundaries of the Pasadena Wildlife Management Area	FW1]

. . .

MOUNTAIN LAKE [CREEK]**BROOK**	
(Liberty) - Source to Mountain Lake	FW2-TM
(White) - Mountain Lake dam to Pequest River	FW2-NT

. . .

[MUDDY CREEK	
(Mad Horse Creek) - Entire length, except segments described below	SE1(C1)
(Mad Horse Creek) - Segments outside of the boundaries of the Mad Horse Creek Wildlife Management Area	SE1
MUDDY RUN	
(Elmer) - Entire length, except segments described below	FW2-NT
(Elmer) - Portion of the Run within Greenwood Pond Wildlife Management Area	FW2-NT(C1)
(Centerton) - Portion of the Run within Parvin State Park	FW2-NT(C1)
(Pittsgrove) - Portion of the run within Union Lake Wildlife Management Area	FW2-NT(C1)]

. . .

MUSCONETCONG RIVER (No change.)	
TRIBUTARIES	
(Anderson) - (Port Murray) (No change.)	
Scout Run (Warren Glen) – Entire length	**FW2-NT(C1)**
(S. of Point Mtn.) - (Waterloo) (No change.)	
[MUSKEE CREEK	
(Port Elizabeth) - Source to boundary of Pinelands Protection and Preservation Area, except segments described separately below	PL

(Peaselee) - The Middle Branch from its origin to the boundaries of the Peaselee Wildlife Management Area FW1

(Peaselee) - Those portions of the tributaries to Slab Branch which are located entirely within the boundaries of the Peaselee Wildlife Management Area FW1

(Bricksboro) - Pinelands Protection and Preservation Area boundaries to Maurice River FW2-NT

NANCY GUT

(Nantuxent) - Source to the boundary of Nantuxent Creek Wildlife Management Area SE1(C1)

(Newport) - Stream and all tributaries outside of the boundaries of the Nantuxent Creek Wildlife Management Area SE1

NANTUXENT CREEK

(Newport Landing) - Entire length, except segment described below FW2-NT/SE1

(Nantuxent) - All waters within the boundaries of Nantuxent Creek Wildlife Management Area FW2-NT/SE1(C1)]

. . .

[OLDMANS CREEK

(Lincoln) – Source to the eastern boundary of the Harrisonville Lake Wildlife Management Area boundary FW2-NT

(Harrisonville) – Eastern boundary of the Harrisonville Lake Wildlife Management Area to Kings Highway by Porches Mill, including all tributaries FW2-NT(C1)

(Oldmans) – Kings Highway by Porches Mill to the Delaware River FW2-NT/SE1]

. . .

[ORANDAKEN CREEK

(Fortescue) - Source to boundary of Egg Island Berrytown Wildlife Management Area FW2-NT/SE1

(Egg Island) - Creek and tributaries within the boundaries of the Egg Island Berrytown Wildlife Management Area FW2-NT/SE1(C1)

PARGEY CREEK

(Gibbstown) - Entire length, except segment described below FW2-NT/SE2

(Logans Pond) - Segment within the boundaries of Logans Pond Wildlife Management Area	FW2-NT/SE2(C1)]
. . .	
[PARVIN LAKE (Parvin State Park)	FW2-NT(C1)
PATTYS FORK - See MAD HORSE CREEK]	
. . .	
[PENNSAUKEN CREEK (Cinnaminson) - Entire length	FW2-NT]
. . .	
[PIERSONS DITCH (Egg Island) - Entire length	FW2-NT/SE1(C1)
PINE BRANCH - See BUCKSHUTEM CREEK]	
. . .	
[POMPESTON CREEK	
(Cinnaminson) – Entire length, except portion described below	FW2-NT
(Riverton) - Route 130 bridge to Broad Street bridge	FW2-NT(C1)]
. . .	
[RACCOON CREEK (Logan) - Entire length	FW2-NT/SE2
RANCOCAS CREEK	
NORTH BRANCH	
(North Hanover) - Source to boundary of the Pinelands Protection and Preservation Area at Pemberton	PL
(Pemberton) - Boundary of the Pinelands Protection and Preservation Area to the Delaware River, except tributaries described below	FW2-NT
(Pemberton) - Tributaries within the boundaries of the Pinelands Protection and Preservation Areas	PL
SOUTH BRANCH RANCOCAS CREEK	
(Southhampton) - Source to Pinelands Protection and Preservation Area boundaries at Rt. 206 bridge south of Vincentown	PL
(Vincentown) - Vincentown to Delaware River, except tributaries described separately below	FW2-NT

(Vincentown) - All tributaries within the Pinelands Protection and Preservation Area	PL
COOPER BRANCH RANCOCAS CREEK	
(Woodmansie) - Entire length, except portions described separately, below	PL
(Brendan T. Byrne State Forest) - Branch and tributaries downstream to Pakim Pond, and tributaries to Cooper Branch located entirely within the Brendan T. Byrne State Forest boundaries	FW1
DEER PARK BRANCH RANCOCAS CREEK	
(Buckingham) - Stream and tributaries near Buckingham to confluence with Pole Bridge Branch	FW1
MACDONALDS BRANCH RANCOCAS CREEK	
(Woodmansie) - Entire length, except as described separately below	PL
(Brendan T. Byrne State Forest) - Branch and tributaries located entirely within Brendan T. Byrne State Forest	FW1
SHINNS BRANCH RANCOCAS CREEK	
(Brendan T. Byrne State Forest) - Branch and tributaries located entirely within the boundaries of Brendan T. Byrne State Forest, from their sources to the forest boundary	FW1
(Lebanon Lake Estates) - Forest boundary to lake	PL
ROARING DITCH	
(Heislerville) - Entire length, except segment described below	SE1
(Eldora) - Ditch and all tributaries within the Dennis Creek Wildlife Management Area boundaries	SE1(C1)
ROWANDS POND (Clementon) - Pond, inlet stream and outlet stream within Rowands Pond Wildlife Management Area	FW2-NT(C1)]

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[SALEM RIVER	
(Upper Pittsgrove) – Source to Slabtown Road, including all tributaries	FW2-NT(C1)
(Woodstown) – Slabtown Road to the confluence with Nichomus Run	FW2-NT
(Sharptown) – Nichomus Run to Major Run, including Nichomus Run, Major Run, and their tributaries	FW2-NT(C1)
(Salem) –Major Run to the confluence with the Delaware River	FW2-NT/SE1]

. . .

[SAVAGES RUN (East Creek)

(Belleplain State Forest) - Entire length, except portions described separately, below PL

(Belleplain State Forest) - Those two tributaries and portions thereof downstream of Lake Nummi and all tributaries to Lake Nummi that are located entirely within the boundaries of Belleplain State Forest FW1]

. . .

[SHAWS MILL POND (Cedarville) FW2-NT/SE1(C1)

TRIBUTARIES

(Edward G. Bevan) - Cedar and Mile Branches to Shaw's Mill Pond FW1]

. . .

[SHINNS BRANCH - See RANCOCAS CREEK]

. . .

[SHORE DITCH (Mad Horse Creek) - Entire length SE1(C1)]

. . .

[SILVER LAKE FORK - See MAD HORSE CREEK
SLAB BRANCH - See MUSKEE CREEK
SLUICE CREEK

(South Dennis) - Entire length, except segment described below FW2-NT/SE1

(Dennis Creek) - Segments of tributaries that are within the Dennis Creek and the Beaver Swamp Wildlife Management Areas FW2-NT/SE1(C1)]

. . .

[STEEP RUN (Mauricetown) - Entire length FW2-NT(C1)]

. . .

[STOW CREEK

(Stow Creek Landing) - Entire length, except tributaries described separately below	FW2-NT/SE1
(Mad Horse Creek) - Tributaries within the boundaries of the Mad Horse Creek Wildlife Management Area	FW2-NT/SE1(C1)
STRAIGHT CREEK (Berrytown) - Entire length	SE1(C1)]

. . .

[THREE MOUTHS (Egg Island)	FW2-NT/SE1(C1)
THUNDERGUST BROOK	
(Deerfield) - Entire length, except segment described below	FW2-NT
(Deerfield) - That segment within the boundaries of Parvin State Park	FW2-NT(C1)
THUNDERGUST LAKE (Parvin State Park)	FW2-NT(C1)]

. . .

[TURNERS FORK - See MAD HORSE CREEK]

. . .

[UPPER BROTHERS CREEK (Egg Island) - Entire length	SE1(C1)
UPPER DEEP CREEK (Mad Horse Creek) - Entire length	SE1(C1)]

. . .

[WEST CREEK

(Halberton) - Source to the boundary of the Pinelands Protection and Preservation Areas, except those portions described separately, below	PL
(Belleplain) - The portion of the tributary that originates about 0.9 miles southeast of Hoffman's Mill and is located entirely within the boundaries of Belleplain State Forest	FW1
(Belleplain) - Those tributaries that originate about 0.5 miles upstream of Hoffman's Mill and are located entirely within the boundaries of Belleplain State Forest	FW1

(Belleplain) - Eastern branch of the easterly tributary to Pickle Factory Pond from its origin to its confluence with the western branch	FW1
(Delmont) - Boundary of the Pinelands Protection and Preservation Area to the boundary of the Fish and Game lands	FW2-NT/SE1(C1)
(Delmont) - Boundary of the Fish and Game lands to Delaware Bay	SE1]

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WICKECHEOKE CREEK	
(Locktown) - Source to confluence with Plum Brook**, including all tributaries**	FW2-NT(C1)
(Stockton) - Confluence with Plum Brook to Delaware River**, including all tributaries**	FW2-TM(C1)
[WIDGEON PONDS (Egg Island)	FW2-NT/SE1(C1)]

. . .

(e) The following surface water classifications are for waters of the Lower Delaware River Basin:

Waterbody	**Classification**
ALLOWAY CREEK	
(Alloways) – Source to Greenwich Street, including all tributaries and Alloway Lake	**FW2-NT**
(Quinton) – Greenwich Street to Delaware Bay	**SE1**
(Quinton) – All named and unnamed tributaries of Alloway Creek from Greenwich Street to Delaware Bay	**FW2-NT/SE1**
ASSISCUNK CREEK	
(Columbus) - Headwaters to confluence with Barkers Brook, including all tributaries	**FW2-NT(C1)**

(Burlington) - Confluence with Barkers Brook to the Delaware River	**FW2-NT**
BALDRIDGE CREEK	
(Salem Creek) - Entire length, except segments described below	**FW2-NT/SE1(C1)**
(Salem Creek) - Segments outside the boundaries of the Supawna National Wildlife Refuge	**FW2-NT/SE1**
BAY PONDS (Egg Island)	**FW2-NT/SE1(C1)**
BEADONS CREEK (Fortescue) - Entire length	**SE1(C1)**
BEAVERDAM BRANCH	
(Glassboro) - Source to boundary of the Glassboro Wildlife Management Area	**FW2-NT**
(Glassboro) - Within the boundaries of Glassboro Wildlife Management Area	**FW2-NT(C1)**
BIG TIMBER CREEK (Westville) - Entire length	**FW2-NT**
BLACKBIRD GUT (Newport) - Entire length	**SE1(C1)**
BLACKS CREEK (Bordentown) - Entire length	**FW2-NT**
BOILER DITCH (Egg Island) - Entire length	**FW2-NT/SE1(C1)**
BUCKS DITCH (Mad Horse Creek) - Entire length	**SE1(C1)**
BUCKSHUTEM CREEK	
(Centre Grove) - Entire length, except segments described separately below	**FW2-NT**
(Edward G. Bevan) - Creek and tributaries within the boundaries of Edward G. Bevan Wildlife Management Area, except those tributaries described separately below	**FW2-NT(C1)**
(Edward G. Bevan) - Joshua and Pine Branches to their confluence with Buckshutem Creek	**FW1**
CAT GUT (Mad Horse Creek) - Entire length	**SE1(C1)**

CEDAR BRANCH (Manumuskin River) - Source to Manumuskin River	**FW1**
CEDAR BRANCH (Edward G. Bevan) - Entire length	**FW1**
CEDAR BRANCH (Edward G. Bevan) - See NANTUXENT CREEK	
CEDAR CREEK	
(Dividing Creek Station) - Entire length, except portions described separately below	**FW2-NT**
(Edward G. Bevan) - Those tributaries to Cedar Creek that originate in and are located entirely within the boundaries of Edward G. Bevan Wildlife Management Area	**FW1**
CEDARVILLE POND (Cedarville)	**FW2-NT(C1)**
CHERRY TREE CREEK (Mad Horse Creek) - Entire length	**SE1(C1)**
CLARKS POND (Bridgeton)	**FW2-NT(C1)**
CLINT MILLPOND (Beaver Swamp)	**FW2-NT(C1)**
COHANSEY RIVER	
(Beals Mill) – Source to Park Drive, including all tributaries and Sunset Lake	**FW2-NT**
(Bridgeton) – Park Drive to the Railroad crossing	**FW2-NT/SE1**
(Bridgeton) – Railroad crossing to Delaware Bay	**SE1**
(Bridgeton) – All named and unnamed tributaries of Cohansey River from Irving Road to Delaware Bay, unless otherwise classified	**FW2-NT/SE1**
COOPER BRANCH - See RANCOCAS CREEK	
COOPER RIVER (Camden) - Entire length	**FW2-NT**
COURTENY PONDS (Egg Island)	**FW2-NT/SE1(C1)**
CROSSWICKS CREEK (Bordentown) - Entire length	**FW2-NT**
CROW CREEK (S. Dennis) - Entire length	**FW2-NT/SE1(C1)**
DEER PARK BRANCH - See RANCOCAS CREEK	

DELAWARE RIVER TRIBUTARIES	
(Brooklawn) - Unnamed or unlisted direct tributaries, south of Big Timber Creek and north of Oldmans Creek, that are outside of the Pinelands Protection and Preservation Areas and are not designated as C1 waters by the Department	**FW2-NT/SE2**
(Penns Grove) - Unnamed or unlisted direct tributaries, south of and including Oldmans Creek, that are outside of the Pinelands Protection and Preservation Areas and are not designated as C1 waters by the Department	**FW2-NT/SE1**
(Pinelands) - All streams or segments of streams which flow directly into the Delaware River, are within the boundaries of the Pinelands Area and are not classified FW1 waters in this Table	**PL**
DENNIS CREEK	
(South Dennis) - Entire length, except segments described below	**FW2-NT/SE1**
(Woodbine) - All tributaries within the boundaries of the Pinelands Protection and Preservation Areas	**PL**
(Dennis Creek) - Segment of the Creek, all tributaries, and all other surface waters within the boundaries of the Dennis Creek Wildlife Management Area	**FW2-NT/SE1(C1)**
DEVILS GUT	
(Mad Horse Creek) - Entire length, except tributaries described below	**SE1(C1)**
(Mad Horse Creek) - Tributaries outside the Mad Horse Creek Wildlife Management Area	**SE1**
DIVIDING CREEK	

(Lores Mill) – Source to Highland Street, except those segments described below	**FW2-NT**
(Dividing Creek) – Highland Street to Delaware Bay, except those segments described below	**FW2-NT/SE1**
(Edward G. Bevan) - Those segments of tributaries that are located entirely within the boundaries of the Edward G. Bevan Wildlife Management Area	**FW1**
DIVISION CREEK (Dix) - Entire length	**SE1(C1)**
DOCTORS CREEK	
(Red Creek) - Entire length, except segment described below	**FW2-NT**
(Imlaystown) - Segment within Imlaystown Lake Wildlife Management Area	**FW2-NT(C1)**
DRUMBO CREEK	
(Dix) - Entire length, except segment described below	**FW2-NT/SE1**
(Dix) - Segment within the boundaries of Dix Wildlife Management Area	**FW2-NT/SE1(C1)**
EAST CREEK	
(Dennis) - Source to boundaries of the Pinelands Protection and Preservation Area, except those portions described separately below	**PL**
(Belleplain) - A stream and tributary that originate just south of East Creek Mill Rd., 1.2+miles north-northeast of Eldora and are located entirely within the boundaries of Belleplain State Forest	**FW1**
(Belleplain) - All tributaries to Lake Nummi from their origins downstream to the Lake	**FW1**
(Eldora) - Boundary of the Pinelands Protection and Preservation Area to Delaware Bay, except	

segment within the boundaries of the Dennis Creek Wildlife Management Area	**SE1**
(Eldora) – All named and unnamed tributaries of East Creek from the boundary of Pinelands Protection and Preservation Area to Delaware Bay, except segment within the boundaries of the Dennis Creek Wildlife Management Area	**FW2-NT/SE1**
(Dennis Creek) - Segment within the boundaries of the Dennis Creek Wildlife Management Area	**SE1(C1)**
ELDER GUT (Egg Island) - Entire length	**FW2-NT/SE1(C1)**
FISHING CREEK (Egg Island) - Entire length	**FW2-NT/SE1(C1)**
FISHING CREEK	
(Canton) - Source to Mad Horse Creek Wildlife Management Area and all tributaries outside of the boundaries of Mad Horse Creek Wildlife Management Area	**SE1**
(Mad Horse Creek) - Creek and tributaries within the boundaries of Mad Horse Creek Wildlife Management Area	**SE1(C1)**
GOOSE POND (Mad Horse Creek)	**SE1(C1)**
GOSHEN CREEK	
(Woodbine) - Entire length except segment described below	**SE1**
(Dennis Creek) - Segment and all tributaries within the Dennis Creek Wildlife Management Area	**SE1(C1)**
GRAVELLY RUN (Edward G. Bevan) - Downstream to the Edward G. Bevan Wildlife Management Area boundaries	**FW1**

HIGBEE BEACH (Higbee Beach Wildlife Management Area)	
All waters within the boundaries of Higbee Beach Wildlife Management Area	**FW2-NT/SE1(C1)**
HIGHS BEACH (Highs Beach) - All waters within the Wildlife Management Area south of Highs Beach	**FW2-NT/SE1(C1)**
IMLAYSTOWN LAKE (Imlaystown)	**FW2-NT(C1)**
INDIAN DITCH (Egg Island) - Entire length	**FW2-NT/SE1(C1)**
ISLAND DITCH (Egg Harbor) - Entire length	**FW2-NT/SE1(C1)**
JADE RUN (Brendan T. Byrne State Forest) - Entire length	**FW1**
JOSHUA BRANCH - See BUCKSHUTEM CREEK	
KING POND (Egg Island)	**SE1(C1)**
LAHAWAY CREEK	
(Prospertown) - Entire length, except tributaries described separately below	**FW2-NT**
(Colliers Mills) - All tributaries which originate in the Colliers Mills Wildlife Management Area north-northeast of Archers Corners, from their sources to the boundaries of the Colliers Mills Wildlife Management Area	**FW1**
LITTLE EASE RUN	
(Glassboro) - Entire length, except portion described separately below	**FW2-NT**
(Glassboro) - Run and tributaries within the Glassboro Wildlife Management Area, except tributary described separately below	**FW2-NT(C1)**
(Glassboro) - The portion of a branch of Little Ease Run situated immediately north of Stanger Avenue, and entirely within the Glassboro Wildlife Management Area	**FW1**

(Glassboro) - The first and second easterly tributaries to Little Ease Run north of Academy Road	**FW1**
LOGAN POND (Repaupo)	**FW2-NT(C1)**
LONG POND (Mad Horse Creek)	**SE1(C1)**
LONE TREE CREEK (Egg Island) - Entire length	**SE1(C1)**
LOWER BROTHERS CREEK (Egg Island) - Entire length	**SE1(C1)**
LOWER DEEP CREEK (Mad Horse Creek) - Entire length	**SE1(C1)**
MAD HORSE CREEK	
(Canton) - Source to the boundary of Mad Horse Creek Wildlife Management Area and all tributaries outside the boundaries of the Wildlife Management Area	**FW2-NT/SE1**
(Mad Horse Creek) - Creek and all waters within the Mad Horse Creek Wildlife Management Area	**FW2-NT/SE1(C1)**
MALAPATIS CREEK	
(Mad Horse Creek) - Entire length, except segment described below	**SE1(C1)**
(Mad Horse Creek) - Portions of the Creek beyond the boundaries of the Mad Horse Creek Wildlife Management Area	**SE1**
MANANTICO CREEK	
(Millville) - Entire length, except segment described below	**FW2-NT**
(Manantico) - Segment within the boundaries of the Manantico Ponds Wildlife Management Area	**FW2-NT(C1)**
MANTUA CREEK	
(Sewell)_ - Source to Wenonah Ave., including all tributaries	**FW2-NT**
(Montua) - Wenonah Ave. to Delaware River	**FW2-NT/SE2**
MASON CREEK	

(Springville) - Entire length, except segment described below	**FW2-NT**
(Medford) - Segment within Medford Wildlife Management Area	**FW2-NT(C1)**
MASONS RUN	
(Pine Hill) - Source to Little Mill Road	**FW2-TP(C1)**
(Lidenwold) - Little Mill Rd. to confluence with Big Timber Creek	**FW2-NT**
MAURICE RIVER	
MAIN STEM	
(Willow's Grove) - Source to the boundary of Union Lake Wildlife Management Area	**FW2-NT**
(Vineland) - Boundary of the Union Lake Wildlife Management Area to confluence with Blackwater Branch	**FW2-NT(C1)**
(Vineland) - Confluence with Blackwater Branch to the Union Lake Dam, except tributaries described under Tributaries below	**FW2-NT**
(Millville) - Union Lake Dam to Delaware Bay, except tributaries described under Tributaries below	**SE1**
(Millville) – All named and unnamed tributaries of Maurice River from Union Lake Dam to Delaware Bay, except tributaries described under Tributaries below, unless otherwise classified	**FW2-NT/SE1**
TRIBUTARIES, MAURICE RIVER	
(Willow's Grove) - Those portion of tributaries that are within the boundaries of the Pinelands Protection and Preservation Area	**PL**

(Vineland) – All tributaries within the boundaries of the Union Lake Wildlife Management Area	**FW2-NT(C1)**
(Matts Landing) - All tributaries within the Wildlife Management Area that borders Delaware Bay	**FW2-NT/SE1(C1)**
MCCORMICK POND (Egg Island)	**FW2-NT/SE1(C1)**
MACDONALD BRANCH - See RANCOCAS CREEK	
MIDDLE BROTHERS CREEK (Egg Island) - Entire length	**SE1(C1)**
MIDDLE MARSH CREEK	
(Dix) - All fresh waters which originate in and are located entirely within the boundaries of the Dix Wildlife Management Area	**FW1**
MILE BRANCH - Entire length	**FW1**
MILL CREEK	
(Carmel) - Entire length, except segment described below	**FW2-NT**
(Union Lake) - Creek and tributaries within the boundaries of the Union Lake Wildlife Management Area	**FW2-NT(C1)**
MOUNT MISERY BROOK	
(Woodmansie) - Entire length, except segments described below	**PL**
SOUTH BRANCH, MOUNT MISERY BROOK	
(Brendan T. Byrne State Forest) - All tributaries to the South Branch that are located entirely within the boundaries of Brendan T. Byrne State Forest	**FW1**
(Pasadena) - The two easterly branches of the Branch which are located entirely within the boundaries of the Pasadena Wildlife Management Area	**FW1**
MUDDY CREEK	

(Mad Horse Creek) - Entire length, except segments described below	**SE1(C1)**
(Mad Horse Creek) - Segments outside of the boundaries of the Mad Horse Creek Wildlife Management Area	**SE1**
MUDDY RUN	
(Elmer) - Entire length, except segments described below	**FW2-NT**
(Elmer) - Portion of the Run within Elmer Lake Wildlife Management Area	**FW2-NT(C1)**
(Centerton) - Portion of the Run within Parvin State Park	**FW2-NT(C1)**
(Pittsgrove) - Portion of the run within Union Lake Wildlife Management Area	**FW2-NT(C1)**
MUSKEE CREEK	
(Port Elizabeth) - Source to boundary of Pinelands Protection and Preservation Area, except segments described separately below	**PL**
(Peaselee) - The Middle Branch from its origin to the boundaries of the Peaselee Wildlife Management Area	**FW1**
(Peaselee) - Those portions of the tributaries to Slab Branch which are located entirely within the boundaries of the Peaselee Wildlife Management Area	**FW1**
(Bricksboro) - Pinelands Protection and Preservation Area boundaries to Maurice River	**FW2-NT**
NANCY GUT	

(Nantuxent) - Source to the boundary of Nantuxent Creek Wildlife Management Area	**SE1(C1)**
(Newport) - Stream and all tributaries outside of the boundaries of the Nantuxent Creek Wildlife Management Area	**SE1**
NANTUXENT CREEK	
(Newport Landing) - Entire length, except segment described below	**FW2-NT/SE1**
(Nantuxent) - All waters within the boundaries of Nantuxent Creek Wildlife Management Area	**FW2-NT/SE1(C1)**
OLDMANS CREEK	
(Lincoln) – Source to the eastern boundary of the Harrisonville Lake Wildlife Management Area boundary	**FW2-NT**
(Harrisonville) – Eastern boundary of the Harrisonville Lake Wildlife Management Area to Kings Highway by Porches Mill, including all tributaries	**FW2-NT(C1)**
(Oldmans) – Kings Highway by Porches Mill to Main Street	**FW2-NT**
(Oldmans) – Main Street to the Delaware River	**FW2-NT/SE1**
ORANOAKEN CREEK	
(Fortescue) - Source to boundary of Egg Island Berrytown Wildlife Management Area	**FW2-NT/SE1**
(Egg Island) - Creek and tributaries within the boundaries of the Egg Island Berrytown Wildlife Management Area	**FW2-NT/SE1(C1)**
PARGEY CREEK	
(Asbury) – Source to Swedesboro Ave.	**FW2-NT**

(Gibbstown) - Swedesboro Avenue to Repaupo Creek, except segments described below	**FW2-NT/SE2**
(Logans Pond) - Segment within the boundaries of Logans Pond Wildlife Management Area	**FW2-NT/SE2(C1)**
PARVIN LAKE (Parvin State Park)	**FW2-NT(C1)**
PATTYS FORK - See MAD HORSE CREEK	
PENNSAUKEN CREEK (Cinnaminson) - Entire length	**FW2-NT**
PIERSONS DITCH (Egg Island) - Entire length	**FW2-NT/SE1(C1)**
PINE BRANCH - See BUCKSHUTEM CREEK	
POMPESTON CREEK	
(Cinnaminson) – Entire length, except portion described below	**FW2-NT**
(Riverton) - Route 130 bridge to Broad Street bridge	**FW2-NT(C1)**
RACCOON CREEK	
(Mullica Hill) – Source to Kings Highway	**FW2-NT**
(Grand Sprute) - Kings Highway to Delaware River	**FW2-NT/SE2**
RANCOCAS CREEK	
NORTH BRANCH	
(North Hanover) - Source to boundary of the Pinelands Protection and Preservation Area at Pemberton	**PL**
(Pemberton) - Boundary of the Pinelands Protection and Preservation Area to the Delaware River, except tributaries described below	**FW2-NT**
(Pemberton) - Tributaries within the boundaries of the Pinelands Protection and Preservation Areas	**PL**
SOUTH BRANCH RANCOCAS CREEK	
(Southhampton) - Source to Pinelands Protection and Preservation Area boundaries at Rt. 206 bridge south of Vincentown	**PL**

(Vincentown) - Vincentown to Delaware River, except tributaries described separately below	**FW2-NT**
(Vincentown) - All tributaries within the Pinelands Protection and Preservation Area	**PL**
COOPER BRANCH RANCOCAS CREEK	
(Woodmansie) - Entire length, except portions described separately, below	**PL**
(Brendan T. Byrne State Forest) - Branch and tributaries downstream to Pakim Pond, and tributaries to Cooper Branch located entirely within the Brendan T. Byrne State Forest boundaries	**FW1**
DEER PARK BRANCH RANCOCAS CREEK	
(Buckingham) - Stream and tributaries near Buckingham to confluence with Pole Bridge Branch	**FW1**
MACDONALDS BRANCH RANCOCAS CREEK	
(Woodmansie) - Entire length, except as described separately below	**PL**
(Brendan T. Byrne State Forest) - Branch and tributaries located entirely within Brendan T. Byrne State Forest	**FW1**
SHINNS BRANCH RANCOCAS CREEK	
(Brendan T. Byrne State Forest) - Branch and tributaries located entirely within the boundaries of Brendan T. Byrne State Forest, from their sources to the forest boundary	**FW1**
(Lebanon Lake Estates) - Forest boundary to lake	**PL**
ROARING DITCH	

(Heislerville) - Entire length, except segment described below	**SE1**
(Eldora) - Ditch and all tributaries within the Dennis Creek Wildlife Management Area boundaries	**SE1(C1)**
ROWANDS POND (Clementon) - Pond, inlet stream and outlet stream within Rowands Pond Wildlife Management Area	**FW2-NT(C1)**
SALEM RIVER	
(Upper Pittsgrove) – Source to Slabtown Road, including all tributaries	**FW2-NT(C1)**
(Woodstown) – Slabtown Road to the confluence with Nichomus Run	**FW2-NT**
(Sharptown) – Nichomus Run to Major Run, including Nichomus Run, Major Run, and their tributaries	**FW2-NT(C1)**
(Salem) – Major Run to the confluence with the Delaware River	**FW2-NT/SE1**
SAVAGES RUN (East Creek)	
(Belleplain State Forest) - Entire length, except portions described separately, below	**PL**
(Belleplain State Forest) - Those two tributaries and portions thereof downstream of Lake Nummi and all tributaries to Lake Nummi that are located entirely within the boundaries of Belleplain State Forest	**FW1**
SHAWS MILL POND (Cedarville)	**FW2-NT/SE1(C1)**
TRIBUTARIES	
(Edward G. Bevan) - Cedar and Mile Branches to Shaw's Mill Pond	**FW1**
SHINNS BRANCH - See RANCOCAS CREEK	

SHORE DITCH (Mad Horse Creek) - Entire length	**SE1(C1)**
SILVER LAKE FORK - See MAD HORSE CREEK	
SLAB BRANCH - See MUSKEE CREEK	
SLUICE CREEK	
(Cedar Grove) – Source to lower boundary of Clint Millpond, except segment with in Beaver Swamp Wildlife Management Area	**FW2-NT**
(Cedar Grove) – Segment and tributaries within the Beaver Swamp Wildlife Management Area	**FW2-NT(C1)**
(South Dennis) - Clint Millpond to Dennis Creek, except segment within the Dennis Creek Wildlife Management Area	**SE1**
(South Dennis) - All named and unnamed tributaries to Sluice Creek from Clint Millpond to Dennis Creek, except segment within the Dennis Creek Wildlife Management Area	**FW2-NT/SE1**
(Dennis Creek) - Segments of tributaries within the Dennis Creek Wildlife Management Area	**SE1(C1)**
STEEP RUN (Mauricetown) - Entire length	**FW2-NT(C1)**
STOW CREEK	
(Jericho) – Source to Buckhorn Road	**FW2-NT**
(Stow Creek Landing) - Buckhorn Road to Delaware River, except tributaries within the boundaries of the Mad Horse Creek Wildlife Management Area	**SE1**
(Stow Creek Landing) – Tributaries of Stow Creek from Buckhorn Road to Delaware River, except tributaries within the boundaries of the Mad Horse Creek Wildlife Management Area	**FW2-NT/SE1**

(Mad Horse Creek) - Tributaries within the boundaries of the Mad Horse Creek Wildlife Management Area	**FW2-NT/SE1(C1)**
STRAIGHT CREEK (Berrytown) - Entire length	**SE1(C1)**
THREE MOUTHS (Egg Island)	**FW2-NT/SE1(C1)**
THUNDERGUST BROOK	
(Deerfield) - Entire length, except segment described below	**FW2-NT**
(Deerfield) - That segment within the boundaries of Parvin State Park	**FW2-NT(C1)**
THUNDERGUST LAKE (Parvin State Park)	**FW2-NT(C1)**
TURNERS FORK - See MAD HORSE CREEK	
UPPER BROTHERS CREEK (Egg Island) - Entire length	**SE1(C1)**
UPPER DEEP CREEK (Mad Horse Creek) - Entire length	**SE1(C1)**
WEST CREEK	
(Halberton) - Source to the boundary of the Pinelands Protection and Preservation Areas, except those portions described separately, below	**PL**
(Belleplain) - The portion of the tributary that originates about 0.9 miles southeast of Hoffman's Mill and is located entirely within the boundaries of Belleplain State Forest	**FW1**
(Belleplain) - Those tributaries that originate about 0.5 miles upstream of Hoffman's Mill and are located entirely within the boundaries of Belleplain State Forest	**FW1**
(Belleplain) - Eastern branch of the easterly tributary to Pickle Factory Pond from its origin to its confluence with the western branch	**FW1**

(Delmont) - Boundary of the Pinelands Protection and Preservation Area to the Delaware Bay, except portions within the boundary of the Fish and Game lands, except tributaries described below	**SE1**
(Delmont) – All named and unnamed tributaries from the boundary of the Pinelands Protection and Preservation Area to the Delaware Bay, except tributaries described below	**FW2-NT/SE1**
(Delmont) – Portions within the Fish and Game lands	**SE1(C1)**
WIDGEON PONDS (Egg Island)	**FW2-NT/SE1(C1)**

[(e)] **(f)** The **following** surface water classifications [in Table 3] are for waters of the Passaic, Hackensack and New York Harbor Complex Basin:

[TABLE 3]

Waterbody	Classification
. . .	
CANISTEAR RESERVOIR TRIBUTARY	
(Vernon) – The eastern tributary to the Reservoir	**FW2-NT(C1)**
(Vernon) - The southern branch of the eastern tributary to the Reservoir	FW1
. . .	
GREEN POND BROOK	
(Picatinny Arsenal) - Green Pond outlet to, but not including, Picatinny Lake	FW2-TP(C1)
(Wharton) – [Outlet of] Picatinny Lake **and its outlet stream** to the confluence with the Rockaway River, including all tributaries	FW2-NT(C1)
. . .	
HOHOKUS BROOK (Hohokus) - Entire length	FW2-NT[/SE2]
. . .	
MACOPIN RIVER	
(Newfoundland) - Source to Echo Lake dam**, including Echo Lake**	FW2-NT
(Newfoundland) - Echo Lake dam downstream to Pequannock River	FW2-TP(C1)
TRIBUTARY	
Mathews Brook (Echo Lake) - Entire length, including all tributaries	**FW2-NT**
. . .	

PEQUANNOCK RIVER
MAIN STEM (No change.)
TRIBUTARIES
(Copperas Mtn.) - (Lake Kampfe) (No change.)

(Suntan Lake) – Entire length, including all tributaries	**FW2-TP(C1)**

. . .

ROCKAWAY RIVER

(Wharton) (No change.)	
(Dover) - Washington Pond outlet downstream to [Rt.] **Route** 46 bridge**, including all tributaries**	FW2-TM(C1)
(Boonton) – [Rt.] **Route** 46 bridge to, but not including Jersey City Reservoir**, including all unnamed and unlisted tributaries**	FW2-NT(C1)
(Boonton) (No change.)	

RUSSIA BROOK

(Sparta) - (Milton) (No change.)	
(Longwood) - Lake Swannanoa and its outlet stream to the confluence with the Rockaway River	**FW2-NT(C1)**

. . .

SADDLE RIVER

(Upper Saddle River) - (Saddle River) (No change.)	
(Lodi) - Allendale Rd. bridge to [Passaic River]**Marsellus Place**	FW2-NT[/SE3]
(Lodi) - Marsellus Place to Passaic River	**FW2-NT/SE3**

. . .

[(f)] **(g)** The **following** surface water classifications [in Table 4] are for waters of the **Upper** Raritan River and Raritan Bay Basin:

[TABLE 4]

Waterbody	Classification
. . .	
[BARCLAY BROOK (Redshaw Corners) - Entire length	FW2-NT
BEAR BROOK (West Windsor) - Entire length	FW2-NT]
. . .	
[BIG BROOK (Vanderberg) - Entire length, including all tributaries and lakes	FW2-NT(C1)]
. . .	
[BLACKBERRY CREEK	
(Oceanport) - Source to a line beginning on the easternmost extent of Gooseneck Point and bearing approximately 162 degrees True North to its terminus on the westernmost extent of an unnamed point of land in the vicinity of the western extent of Cayuga Ave. in Oceanport.	SE1
(Oceanport) - Creek below the line described above	SE1(C1)]
. . .	
[BRANCHPORT CREEK	
(Long Branch) - Source to a line beginning on the northernmost extent of an unnamed point of land lying north of Pocano Ave. in Oceanport and bearing approximately 055 degrees True North to its terminus on the westernmost extent of the northern bulkhead at the lagoon located between France Rd. and Lori Rd. in Monmouth Beach	FW2-NT/SE1
(Monmouth Beach) - Creek below line described above	SE1(C1)]
. . .	

[CEDAR BROOK (Spotswood) - Entire length FW2-NT]

. . .

[CHEESEQUAKE STATE PARK WATERS (S. Amboy) - Fresh waters within the park upstream of the limits of tidal influence FW2-NT(C1)
CLAYPIT CREEK
(Navesink) - Source to widening of the Creek near Linden Ave. and just north to the Locust Ave. bridge in Navesink FW2-NT/SE1
(Navesink) - Widening of Creek to Navesink River SE1(C1)]

. . .

[CRANBURY BROOK (Old Church) - Entire length FW2-NT]

. . .

[DEEP RUN (Old Bridge) - Entire length FW2-NT
DEVILS BROOK (Schalks) - Entire length FW2-NT]

. . .

[GANDER BROOK (Manalapan) - Entire length FW2-NT]

. . .

[GREAT DITCH (S. Brunswick) - That portion of Great Ditch and its tributaries within Pigeon Swamp State Park FW2-NT(C1)]
GREEN BROOK
(Watchung) (No change.)
(Plainfield) – [Rt.] **Route** 22 bridge to [Bound Brook] **Raritan River** FW2-NT

. . .

[IRELAND BROOK (Paulus Corners) - Entire length FW2-NT
IRESICK BROOK (Spotswood) - Entire length FW2-NT]

. . .

[LAWRENCE BROOK

(Deans) - Source to the intake of the New Brunswick Water Department at Weston's Mill Dam	FW2-NT
(New Brunswick) - Weston's Mill Dam to Raritan River	SE1]

. . .

[LITTLE SILVER CREEK	
(Shrewsbury) - Source to a line beginning on the eastern bank of that unnamed lagoon located between Wardell Ave. and Oakes Rd. in Rumson and bearing approximately 171 degrees T (True North) to its terminus on the south shore of Little Silver Creek	FW2-NT/SE1
(Rumson) - Creek below line described above	SE1(C1)]

. . .

[MANALAPAN BROOK	
(Jamesburg) - Source to Duhernal Lake dam, except tributary described separately below	FW2-NT
(Tennent) - That portion of the tributary at Tennent along the boundary of Monmouth Battlefield State Park	FW2-NT(C1)
MATCHAPONIX BROOK (WEAMACONK CREEK)	
(Mount Mills) - Entire length, except segments described below	FW2-NT
(Freehold) - The brook and tributaries within the boundaries of Monmouth Battlefield State Park	FW2-NT(C1)
MCGELLAIRDS BROOK	
(Englishtown) - Entire length, except tributary described separately below	FW2-NT
(Freehold) - Tributary within Monmouth Battlefield State Park	FW2-NT(C1)]

. . .

[MILLSTONE RIVER (Hightstown) - Entire length	FW2-NT]

. . .

[MINE BROOK (Colts Neck) - Entire length, including all tributaries	FW2-NT(C1)]

. . .

[NAVESINK RIVER

(Red Bank) - Source to a line starting at a point at the northeast end of Blossom Cove, bearing approximately 142 degrees T (True North), through navigational aid C23 to the south bank near Riverview Hospital	SE1
(Rumson) - River southeast of the line described above, except segment described below	SE1(C1)
(Monmouth Beach) - All water south and east of a line beginning on the northwesternmost point of land on Raccoon Island (in the vicinity of the western extent of Highland Ave.) in Monmouth Beach, and bearing approximately 056 degrees T (True North) to the southernmost point of a small unnamed island, and then bearing approximately 091 degrees T (True North) to its terminus on the northernmost point of land located at the northern extent of Monmouth Parkway in Monmouth Beach and all waters south of a line beginning on the western shoreline (just east of Monmouth Parkway in Monmouth Beach) and bearing approximately 081 degrees T (True North), intersecting Channel Marker Flashing Red 4 and Channel Marker Flashing Red 2 and terminating on the eastern shoreline of the Galilee section of Monmouth Beach.	SE1]

. . .

[OAKEYS BROOK (Deans) - Entire length	FW2-NT
OCEANPORT CREEK	
(Fort Monmouth) - Source to a line beginning on the easternmost extent of Horseneck Point and bearing approximately 140 degrees T (True North) to its terminus on the westernmost extent of an unnamed point of land located at the westernmost extent of Monmouth Boulevard in Oceanport	FW2-NT/SE1
(Oceanport) - Creek downstream of line described above	SE1(C1)
PARKERS CREEK	
(Fort Monmouth) - Source to a line beginning on the easternmost extent of Horseneck Point and bearing approximately 000 degrees T (True North) to its terminus on Breezy Point on the Little Silver side (north) side of the creek	FW2-NT/SE1
(Fort Monmouth) - Creek downstream of line described above	SE1(C1)]

. . .

[PINE BROOK (Clarks Mills) - Entire length	FW2-NT
PINE BROOK (Cooks Mill) - Entire length	FW2-TM]

. . .

[RAMINESSIN (HOP) BROOK (Holmdel) - Entire length, including all tributaries	FW2-TM(C1)]

. . .

[SANDY HOOK BAY (Sandy Hook)	SE1
SHREWSBURY RIVER	
(Little Silver) - Source to Rt. 36 highway bridge	SE1(C1)
(Highlands) - Rt. 36 bridge to Sandy Hook Bay	SE1]

. . .

[SOUTH RIVER	
(Old Bridge) - Duhernal Lake to intake of the Sayreville Water Department	FW2-NT
(Sayreville) - Below the intake of the Sayreville Water Department	SE1]

. . .

STONY BROOK	
(Hopewell) (No change.)	
(Hopewell) (No change.)	
(Carnegie Lake) – Quaker Road to Millstone River, including Carnegie Lake	**FW2-NT**
(Snydertown) (No change.)	

. . .

[SWIMMING RIVER RESERVOIR (Red Bank)	FW2-NT(C1)
TRIBUTARIES (Swimming River Reservoir) – All unnamed and unlisted tributaries to Swimming River Reservoir	FW2-NT(C1)
SWIMMING RIVER (Red Bank) - Swimming River Reservoir dam to the Navesink River	FW2-NT/SE1]

. . .

[TENNENT BROOK (Old Bridge) - Entire length	FW2-NT
TEPEHEMUS BROOK (Manalapan) - Entire length	FW2-NT
TOWN NECK CREEK	
(Little Silver) - Source to a line beginning on the easternmost extent of the unnamed point of land located just east of Paag Circle on the south bank of Town Neck Creek and bearing approximately 095 degrees True North and terminating on Silver Point	FW2-NT/SE1
(Little Silver) - Creek below the line described above	SE1(C1)]

. . .

[WEAMACONK CREEK - See MATCHAPONIX BROOK	
WEMROCK BROOK	
(Millhurst) - Entire length, except that segment described below	FW2-NT
(Monmouth Battlefield State Park) - Those segments of the brook and its tributaries within the boundaries of Monmouth Battlefield State Park	FW2-NT(C1)
WEMROCK POND (Monmouth Battlefield State Park)	FW2-NT(C1)]

. . .

[WILLOW BROOK (Holmdel) - Entire length, including all tributaries	FW2-NT(C1)
YELLOW BROOK (Colts Neck) - Entire length, including all tributaries	FW2-NT(C1)]

(h) The following surface water classifications are for waters of the Lower Raritan River and Raritan Bay Basin:

Waterbody	**Classification**
BARCLAY BROOK (Redshaw Corners) - Entire length	**FW2-NT**
BEAR BROOK (West Windsor) - Entire length	**FW2-NT**

BIG BROOK (Vanderberg) - Entire length, including all tributaries and lakes	**FW2-NT(C1)**
BLACKBERRY CREEK	
(Oceanport) - Source to a line beginning on the easternmost extent of Gooseneck Point and bearing approximately 162 degrees True North to its terminus on the westernmost extent of an unnamed point of land in the vicinity of the western extent of Cayuga Ave. in Oceanport	**SE1**
(Oceanport) - Creek below the line described above	**SE1(C1)**
BRANCHPORT CREEK	
(Long Branch) - Source to a line beginning on the northernmost extent of an unnamed point of land lying north of Pocano Ave. in Oceanport and bearing approximately 055 degrees True North to its terminus on the westernmost extent of the northern bulkhead at the lagoon located between France Rd. and Lori Rd. in Monmouth Beach	**FW2-NT/SE1**
(Monmouth Beach) - Creek below line described above	**SE1(C1)**
CEDAR BROOK (Spotswood) - Entire length	**FW2-NT**
CHEESEQUAKE STATE PARK WATERS (S. Amboy) - Fresh waters within the park upstream of the limits of tidal influence	**FW2-NT(C1)**
CLAYPIT CREEK	
(Navesink) - Source to widening of the Creek near Linden Ave. and just north to the Locust Ave. bridge in Navesink	**FW2-NT/SE1**
(Navesink) - Widening of Creek to Navesink River	**SE1(C1)**

CRANBURY BROOK (Old Church) - Entire length	**FW2-NT**
DEEP RUN (Old Bridge) - Entire length	**FW2-NT**
DEVILS BROOK (Schalks) - Entire length	**FW2-NT**
GANDER BROOK (Manalapan) - Entire length	**FW2-NT**
GREAT DITCH (S. Brunswick) - That portion of Great Ditch and its tributaries within Pigeon Swamp State Park	**FW2-NT(C1)**
IRELAND BROOK (Paulus Corners) - Entire length	**FW2-NT**
IRESICK BROOK (Spotswood) - Entire length	**FW2-NT**
LAWRENCE BROOK	
(Deans) - Source to the intake of the New Brunswick Water Department at Weston's Mill Dam	**FW2-NT**
(New Brunswick) - Weston's Mill Dam to Raritan River	**SE1**
LITTLE SILVER CREEK	
(Shrewsbury) - Source to a line beginning on the eastern bank of that unnamed lagoon located between Wardell Ave. and Oakes Rd. in Rumson and bearing approximately 171 degrees T (True North) to its terminus on the south shore of Little Silver Creek	**FW2-NT/SE1**
(Rumson) - Creek below line described above	**SE1(C1)**
MANALAPAN BROOK	
(Jamesburg) - Source to Duhernal Lake dam, except tributary described separately below	**FW2-NT**
(Tennent) - That portion of the tributary at Tennent along the boundary of Monmouth Battlefield State Park	**FW2-NT(C1)**
MATCHAPONIX BROOK (WEAMACONK CREEK)	

(Mount Mills) - Entire length, except segments described below	**FW2-NT**
(Freehold) - The brook and tributaries within the boundaries of Monmouth Battlefield State Park	**FW2-NT(C1)**
MCGELLAIRDS BROOK	
(Englishtown) - Entire length, except tributary described separately below	**FW2-NT**
(Freehold) - Tributary within Monmouth Battlefield State Park	**FW2-NT(C1)**
MILLSTONE RIVER (Hightstown) - Entire length	**FW2-NT**
MINE BROOK (Colts Neck) - Entire length, including all tributaries	**FW2-NT(C1)**
NAVESINK RIVER	
(Red Bank) - Source to a line starting at a point at the northeast end of Blossom Cove, bearing approximately 142 degrees T (True North), through navigational aid C23 to the south bank near Riverview Hospital	**SE1**
(Rumson) - River southeast of the line described above, except segment described below	**SE1(C1)**
(Monmouth Beach) - All water south and east of a line beginning on the northwesternmost point of land on Raccoon Island (in the vicinity of the western extent of Highland Ave.) in Monmouth Beach, and bearing approximately 056 degrees T (True North) to the southernmost point of a small unnamed island, and then bearing approximately 091 degrees T (True North) to its terminus on the northernmost point of land	

located at the northern extent of Monmouth Parkway in Monmouth Beach and all waters south of a line beginning on the western shoreline (just east of Monmouth Parkway in Monmouth Beach) and bearing approximately 081 degrees T (True North), intersecting Channel Marker Flashing Red 4 and Channel Marker Flashing Red 2 and terminating on the eastern shoreline of the Galilee section of Monmouth Beach.	**SE1**
OAKEYS BROOK (Deans) - Entire length	**FW2-NT**
OCEANPORT CREEK	
(Fort Monmouth) - Source to a line beginning on the easternmost extent of Horseneck Point and bearing approximately 140 degrees T (True North) to its terminus on the westernmost extent of an unnamed point of land located at the westernmost extent of Monmouth Boulevard in Oceanport	**FW2-NT/SE1**
(Oceanport) - Creek downstream of line described above	**SE1(C1)**
PARKERS CREEK	
(Fort Monmouth) - Source to a line beginning on the easternmost extent of Horseneck Point and bearing approximately 000 degrees T (True North) to its terminus on Breezy Point on the Little Silver side (north) side of the creek	**FW2-NT/SE1**
(Fort Monmouth) - Creek downstream of line described above	**SE1(C1)**

PINE BROOK (Clarks Mills) - Entire length	**FW2-NT**
PINE BROOK (Cooks Mill) - Entire length	**FW2-TM**
RAMINESSIN (HOP) BROOK (Holmdel) - Entire length, including all tributaries	**FW2-TM(C1)**
SANDY HOOK BAY (Sandy Hook)	**SE1**
SHREWSBURY RIVER	
(Little Silver) - Source to Rt. 36 highway bridge	**SE1(C1)**
(Highlands) - Rt. 36 bridge to Sandy Hook Bay	**SE1**
SOUTH RIVER	
(Old Bridge) - Duhernal Lake to intake of the Sayreville Water Department	**FW2-NT**
(Sayreville) - Below the intake of the Sayreville Water Department	**SE1**
SWIMMING RIVER RESERVOIR (Red Bank)	**FW2-NT(C1)**
TRIBUTARIES (Swimming River Reservoir) – All unnamed and unlisted tributaries to Swimming River Reservoir	**FW2-NT(C1)**
SWIMMING RIVER	
(Red Bank) - Swimming River Reservoir dam to Normandy Road	**FW2-NT**
(Red Bank) - Normandy Road to the Navesink River	**SE1**
TENNENT BROOK (Old Bridge) - Entire length	**FW2-NT**
TEPEHEMUS BROOK (Manalapan) - Entire length	**FW2-NT**
TOWN NECK CREEK	
(Little Silver) - Source to a line beginning on the easternmost extent of the unnamed point of land located just east of Paag Circle on the south bank of Town Neck Creek and bearing	

approximately 095 degrees True North and terminating on Silver Point	**FW2-NT/SE1**
(Little Silver) - Creek below the line described above	**SE1(C1)**
WEAMACONK CREEK - See MATCHAPONIX BROOK	
WEMROCK BROOK	
(Millhurst) - Entire length, except that segment described below	**FW2-NT**
(Monmouth Battlefield State Park) - Those segments of the brook and its tributaries within the boundaries of Monmouth Battlefield State Park	**FW2-NT(C1)**
WEMROCK POND (Monmouth Battlefield State Park)	**FW2-NT(C1)**
WILLOW BROOK (Holmdel) - Entire length, including all tributaries	**FW2-NT(C1)**
YELLOW BROOK (Colts Neck) - Entire length, including all tributaries	**FW2-NT(C1)**

[(g)] **(i)** The **following** surface water classifications [in Table 5] are for waters of the Wallkill River Basin:

[TABLE 5]

(No change in text.)

[(h)] **(j)** FW1 waters are listed [in Table 6] by tract within basins:

[Table 6]

(No change in text.)

[(i)] **(k)** The following are the Outstanding National Resource Waters of the State:

[Table 7]

(No change in text.)

N.J.A.C.7:7A FRESHWATER WETLANDS PROTECTION ACT RULES

N.J.A.C.7:7A-1.4 DEFINITIONS

. . .

"Category one waters" means waters designated as [category one waters] **such** in the Department's Surface Water Quality Standards at N.J.A.C. 7:9B. [As of September 4, 2001, N.J.A.C. 7:9B-1.15 defines category one waters as those waters designated in the tables in N.J.A.C. 7:9B-1.15(c) through (h), for purposes of implementing the antidegradation policies set forth at N.J.A.C. 7:9B-1.5(d), for protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, other characteristics of aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s). These waters may include, but are not limited to:

1. Waters originating wholly within Federal, interstate, State, county, or municipal parks, forests, fish and wildlife lands, and other special holdings that have not been designated as FW1 at N.J.A.C. 7:9B-1.15(h) Table 6;
2. Waters classified at N.J.A.C. 7:9B-1.15(c) through (g) as FW2 trout production waters and their tributaries;
3. Surface waters classified in this subchapter as FW2 trout maintenance or FW2 nontrout that are upstream of waters classified in this subchapter as FW2 trout production;
4. Shellfish waters of exceptional resource value; or
5. Other waters and their tributaries that flow through, or border, Federal, State, county, or municipal parks, forests, fish and wildlife lands, and other special holdings.]

. . .

CHAPTER 14A NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

N.J.A.C. 7:14A-1.2 DEFINITIONS

. . .

["Category one waters" means those waters designated in the tables in N.J.A.C. 7:9B-1.15(c) through (h), for purposes of implementing the antidegradation policies as set forth at N.J.A.C. 7:9B1.5(d), the SWQS, for protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, other characteristics of aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resources(s). These waters may include, but are not limited to:

1. Waters originating wholly within Federal, Interstate, State, County, or municipal parks, forests, fish and wildlife lands, and other special holdings that have not been designated as FW1 in N.J.A.C. 7:9B-1.15(h), Table 6;

2. Waters classified in N.J.A.C. 7:9B-1.15(c) through (g) as FW2 trout production waters and their tributaries;

3. Surface waters classified in this subchapter as FW2 trout maintenance or FW2 nontrout that are upstream of waters classified in this subchapter as FW2 trout production;

4. Shellfish waters of exceptional resource value; or

5. Other waters and their tributaries that flow through, or border, Federal, State, county or municipal parks, forest, fish and wildlife lands, and other special holdings.]

"Category One waters" means waters designated as such in the Department's Surface Water Quality Standards at N.J.A.C. 7:9B.

. . .

SUBCHAPTER 13. EFFLUENT LIMITATION FOR DSW PERMITS

13.6 Calculation of water quality based limitations

(a) and (b) (No change)

(c) Unless a metal translator is developed based on a site-specific water quality study or approved by USEPA as part of a watershed study or TMDL, the following metal translator values* shall be used to develop total recoverable effluent limitations from dissolved metal criteria:

	Name of the Metal	Freshwater Acute	Freshwater Chronic	Saline Acute	Saline Chronic
1.	Arsenic	1.0	1.0	1.0	1.0
2.	Cadmium	0.651	0.651	0.994	0.994
3.	Chromium III	0.277	0.277	N/A	N/A
4.	Chromium VI	0.919	0.919	0.993	0.993
5.	Copper	0.908	0.908	0.83	0.83
6.	Lead	0.723	0.723	0.951	0.951
7.	Mercury	0.85	0.85	0.85	0.85
8.	Nickel	0.846	0.846	0.990	0.990
9.	Selenium	N/A	N/A	0.998	0.998
10.	Silver	0.85	N/A	0.85	N/A
11.	Zinc	0.950	0.950	0.946	0.946

*Metal Translator Value equals the ratio of the Dissolved Metal Concentration to the Total Recoverable Metal Concentration.

N/A Not applicable

(d) Whole effluent toxicity test species selection criteria are as follows:

1. The objective of the Department is to use test species for whole effluent toxicity testing that are representative of the more sensitive aquatic biota from the different trophic levels of the waters in question.

2. Test species need not be indigenous to, nor occur in the waters in question.

3. The Department shall designate the approved representative species considered to be the most sensitive to the discharge.

Based on consultation with staff, I hereby certify that the above statements, including the Federal standards analysis addressing the requirements of Executive Order 27 (1994), permit the public to understand accurately and plainly the purposes and expected consequences of this proposed readoption with amendments. I hereby authorize this proposal.

Date:_____

_____

Mark N. Mauriello, Acting Commissioner

Department of Environmental Protection