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## **CHAPTER 9**

## WATER POLLUTION CONTROL

## Authority

N.J.S.A. 13:1B-3, 13:1D-9, 58:4A-4.1 et seq., 58:10A-1 et seq., 58:11A-1 et seq.

## Source and Effective Date

R.1991 d.68, effective January 18, 1991. See: 22 N.J.R. 3297(a), 23 N.J.R. 406(c).

## Executive Order No. 66(1978) Expiration Date

Chapter 9, Water Pollution Control, expires on January 18, 1996.

## Chapter Historical Note

All provisions of this chapter became effective prior to September 1, 1969.

1972 Revisions: Subchapter 10 became effective January 15, 1972 as R.1972 d.208. See: 3 N.J.R. 78(a), 3 N.J.R. 255(b).

1973 Revisions: Subchapter 9 became effective October 23, 1973 as R.1973 d.299. See: 5 N.J.R. 185(b), 5 N.J.R. 370(b).

1974 Revisions: Subchapter 11 became effective June 18, 1974 as R.1974 d.151. See: 6 N.J.R. 132(c), 6 N.J.R. 263(b). Subchapter 4 was originally adopted and amendments to subchapter 7 became effective December 2, 1974 as R.1974 d.310. See: 6 N.J.R. 302(d), 6 N.J.R. 470(c).

1975 Revisions: Subchapter 13 became effective October 16, 1975 as R.1975 d.302. See: 7 N.J.R. 147(a), 7 N.J.R. 499(e).

1977 Revisions: Amendments became effective December 16, 1977 as R.1977 d.477. See: 9 N.J.R. 461(a), 10 N.J.R. 10(c).

1978 Revisions: Amendments to the chapter became effective January 23, 1978 as R.1978 d.21. See: 9 N.J.R. 115(b), 10 N.J.R. 61(b). Subchapter 14 concerning ground water quality standards was originally adopted and codified by R.1978 d.20, effective January 23, 1978. See: 9 N.J.R. 68(b), 10 N.J.R. 61(a). Further revisions became effective June 1, 1978 as R.1978 d.102. See: 10 N.J.R. 146(d). Amendments were adopted as R.1978 d.161, effective June 1, 1978; R.1978 d.182, effective July 1, 1978, and R.1978 d.231, effective August 10, 1978. See: 10 N.J.R. 237(b); 10 N.J.R. 279(b); 10 N.J.R. 328(c).

1979 Revisions: Amendments became effective March 29, 1979 as R.1979 d.129. See: 11 N.J.R. 9(b), 11 N.J.R. 230(a). Further amendments became effective July 19, 1979 as R.1979 d.282. See: 9 N.J.R. 46(a), 10 N.J.R. 10(c).

1980 Revisions: Section 1.98 was repealed by R.1980 d.182, effective April 25, 1980. See: 12 N.J.R. 108(b), 12 N.J.R. 313(c). Subchapter 15 became effective August 22, 1980 as R.1980 d.374. See: 12 N.J.R. 310(a), 12 N.J.R. 575(c). The original text of Subchapter 3 (Location of Factory within Watershed) was repealed by R.1980 d.433, effective October 7, 1980. See: 12 N.J.R. 454(b), 12 N.J.R. 643(a).

1981 Revisions: Amendments which deleted Subchapter 4, 5, 8 (but recodified sections 8.4 through 8.43 as N.J.A.C. 7:9–5.11), 11 (but recodified portions of the text at N.J.A.C. 7:9–5), and 14 (but recodified portions of the text at 7:9–6), and substituted new text, were adopted as R.1981 d.80, effective March 4, 1981. See: 12 N.J.R. 108(c), 13 N.J.R. 194(b). Further amendments became effective July 9, 1981 as R.1981 d.224. See: 12 N.J.R. 639(b), 13 N.J.R. 402(a).

1982 Revisions: Amendments became effective September 7, 1982 as R.1982 d.298. See: 14 N.J.R. 504(a), 14 N.J.R. 979(a).

1983 Revisions: Subchapter 2 was readopted pursuant to Executive Order No. 66(1978), effective June 3, 1983 as R.1983 d.243. See: 15 N.J.R. 591(a), 15 N.J.R. 1042(a). Further amendments became effective October 3, 1983 as R.1983 d.423 and repealed the text of subchapter 10 as duplicative of current review procedures conducted by local boards of health and the Pinelands Commission. See: 15 N.J.R. 1155(a), 15 N.J.R. 1654(b).

1984 Revisions: Amendments became effective August 6, 1984 as R.1984 d.336. See: 16 N.J.R. 660(a), 16 N.J.R. 2096(a).

1985 Revisions: Amendments which deleted the text of Subchapters 4 and 5 and adopted new text became effective May 20, 1985 as R.1985 d.249. See: 16 N.J.R. 3080(a), 17 N.J.R. 1270(a).

1986 Revisions: Subchapter 15 expired August 22, 1985 and new rules were adopted pursuant to Executive Order No. 66(1987) effective January 21, 1986 as R.1985 d.717. See: 17 N.J.R. 2182(a), 18 N.J.R. 163(b). Amendments became effective September 3, 1985 as R.1985 d.466. See: 17 N.J.R. 1625(a), 17 N.J.R. 2109(a).

1987 Revisions: Subchapter 13 was repealed effective November 2, 1987 as R.1987 d.445. See: 18 N.J.R. 2163(a), 19 N.J.R. 2000(b).

1988 Revisions: Subchapter 1 had expired pursuant to Executive Order No. 66(1978) on April 25, 1985 and was adopted as a new rule effective May 2, 1988 as R.1988 d.205. See: 19 N.J.R. 2227(b), 20 N.J.R. 980(a).

Pursuant to Executive Order No. 66(1978), Chapter 9 was readopted as R.1991 d.68. See: Source and Effective Date. Subchapter 6, Ground Water Quality Standards, was repealed and replaced by new rules as R.1993 d.73, effective February 1, 1993. See: 24 N.J.R. 181(a), 25 N.J.R. 464(a).

Public Notice: Opportunity for interested party review for rule amendment

See: 25 N.J.R. 411(a).

See section annotations for specific rulemaking activity.

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## SUBCHAPTER 1. (RESERVED)

## Subchapter Historical Note

Subchapter 1, Sewer Systems and Wastewater Treatment Plants, was repealed by R.1994 d.278, effective June 6, 1994. See: 25 N.J.R. 3282(a), 26 N.J.R. 2413(b). See, now, N.J.A.C. 7:14A-22 and 23.

## SUBCHAPTER 2. (RESERVED)

## Subchapter Historical Note

Subchapter 2, Standards for Construction of Individual Subsurface Sewage Disposal Systems, was repealed by R.1989 d.450 and replaced by N.J.A.C. 7:9A, effective August 21, 1989, but operative January 1, 1990. See: 20 N.J.R. 1790(a), 21 N.J.R. 2534(a).

## Cross References

Classification of injection wells, see N.J.A.C. § 7:14A-5.2

## SUBCHAPTER 3. (RESERVED)

## SUBCHAPTER 4. (RESERVED)

## Subchapter Historical Note

Subchapter 4, Surface Water Quality Standards, was originally adopted as R.1974 d.310, effective December 2, 1974. See: 6 N.J.R. 302(d), 6 N.J.R. 470(c). Amendments which deleted the existing text of this subchapter and substituted new text thereof were adopted as R.1981 d.80, effective March 4, 1981. See: 12 N.J.R. 108(c), 13 N.J.R. 194(b). Further amendments which deleted the existing text of this subchapter and substituted new text became effective May 20, 1985 as R.1985 d.249. See: 16 N.J.R. 3080(a), 17 N.J.R. 1270(a). Notice of petition to amend New Jersey Pollution Discharge Elimination System permits. See: 23 N.J.R. 236(a). Notice of Action on Petition to amend New Jersey Pollution Discharge Elimination System permits. See: 23 N.J.R. 622(b).

Subchapter 4 was recodified to N.J.A.C. 7:9B-1 by R.1993 d.610, effective December 6, 1993. See: 24 N.J.R. 3983(a), 24 N.J.R. 4471(a), 25 N.J.R. 404(a), 25 N.J.R. 5569(a).

# SUBCHAPTER 5. WASTEWATER DISCHARGE REOUIREMENTS

## 7:9-5.1 Scope of rules

- (a) Unless otherwise provided by rule or statute, this subchapter shall constitute the rules of the Department of Environmental Protection concerning matters of policy with respect to the protection and enhancement of surface waters of the State, disinfection, and minimum treatment requirements pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. and the Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq.
- (b) This subchapter shall apply to effluent limitations and other requirements applicable to discharges into the surface waters of the State.

Petition for Rulemaking. See: 23 N.J.R. 222(a).

Responsibilities of the Department of Environmental Protection in review of mausoleum construction plans; concurrent State and municipal jurisdiction over mausoleum construction. Cedar Park Cemetery v. Hayes, 132 N.J.Super. 572, 334 A.2d 386 (Law Div.1975).

Former regulation set forth the objective of the Water Resources Division to integrate and promote modern sanitary sewerage throughout the State. Cedar Park Cemetery v. Hayes, 132 N.J.Super. 572, 334 A.2d 386 (Law Div.1975).

## 7:9-5.2 Construction

These rules shall be liberally construed to permit the Department and its various divisions to discharge its statutory functions.

## 7:9-5.3 Definitions

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

"BOD" means biochemical oxygen demand.

"COD" means chemical oxygen demand.

"Commissioner" means the Commissioner of the Department of Environmental Protection.

"Department" means the New Jersey Department of Environmental Protection.

"Discharge" means the releasing, spilling, leaking, pumping, pouring, emitting, emptying, or dumping of a pollutant into the waters of the State or onto land or into wells from which it might flow or drain into said waters.

"Discharger" means any person, corporation, municipality, sewerage authority or other legal entity, who causes, suffers, or allows any discharge.

"Disinfection" means the removal, destruction or inactivation of pathogenic and indicator organisms.

"EC50" means the median effective concentration of a toxic substance. Generally, this is a statistical estimate of the concentration that has a specified adverse effect on 50 percent of the test organisms under specified test conditions, based on the results of an acute bioassay.

"Lake, pond, or reservoir" means any impoundment, whether naturally occurring or created in whole or in part by the building of structures for the retention of surface water, excluding sedimentation control and stormwater retention/detention basins.

"LC50" means the median lethal concentration of a toxic substance. Generally, this is a statistical estimate of the concentration that has a specified effect on 50 percent of the test organisms under specified test conditions, based on the results of an acute bioassay.

"Level of treatment" means the degree of waste removal and accompanying residual wastewater effluent to be attained by any discharger.

"MG/L" means milligrams per liter.

"Pollutant" means any dredged spoil, solid waste, incinerator residue, sewage, garbage, refuse, oil, grease, sewage sludge, munition, chemical waste, biological material, radioactive substance, thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, or agricultural waste or other residue discharged or otherwise entering into the waters of the State.

"TOC" means total organic carbon.

"Toxic substance" means those substances, or combination of substances, which upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly through food chains, will, on the basis of information available to the Department, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), or physical deformation in such organisms or their offspring.

"Water quality standards" means the designated uses and the physical, chemical, biological and esthetic characteristics of a water body as described by ambient water quality criteria, set forth in N.J.A.C. 7:9–4.

## 7:9-5.4 Statements of policy

(a) The following are general statements of policy:

- 1. It shall be unlawful for any person to discharge any pollutant into waters of the State, except in conformity with a valid permit issued by the Commissioner or by the Administrator of the United States Environmental Protection Agency.
- 2. It shall be unlawful for any person to build, install, modify or operate any facility for the collection, treatment or discharge of any pollutant, except after approval by the Department pursuant to regulations adopted by the Commissioner.
- 3. The protection and enhancement of the quality and function of the waters of this State into which effluents are discharged is a principal concern of the Department when considering the approval of permits to discharge or the designs of proposed facilities for the collection, treatment or discharge of pollutants.
- 4. The minimum level of treatment required for any wastewater must be such that discharges will meet effluent limitations established pursuant to N.J.A.C. 7:9–5.8 (where applicable) or Sections 301, 306 and 307 of the Federal Clean Water Act, whichever are more stringent, and shall not cause any of the provisions contained in N.J.A.C. 7:9–4.1 et seq. to be contravened.
- 5. No discharger shall have the privilege of using the entire theoretical capacity of a surface water to receive waste discharges.
  - 6. The policies for interstate waters are:
  - i. The minimum level of treatment for wastewater treatment facilities that discharge treatment wastewater to the Delaware River, including freshwater and saline water tidal tributaries to the Delaware River and Delaware Bay, shall be as established in N.J.A.C. 7:9–5.8 (where applicable) or pursuant to Sections 301, 306 and 307 of the Federal Clean Water Act whichever is more stringent.
  - ii. The minimum level of treatment of wastewater treatment facilities that discharge treated wastewaters to waters under the jurisdiction of the Interstate Sanitation Commission in the New Jersey–New York Metropolitan area shall be as established in N.J.A.C. 7:9–5.8 (where applicable) or in accordance with the current Interstate Sanitation Commission's Water Quality Regulations (and subsequent revisions), or in accordance with Sections 301, 306 and 307 of the Federal Clean Water Act, whichever is more stringent.
- (b) The following are statements of policy concerning disinfection of wastewater:
  - 1. All wastewaters that could contain pathogenic organisms shall receive continuous year round disinfection prior to their discharge into waters of the State.
    - i. For those portions of the New York Harbor area where seasonal disinfection was allowed under the wastewater disinfection requirements contained in

"Treatment of Wastewater Discharged into Surface Waters of the State" as adopted in March 1981, compliance with the provisions of paragraph 1 above is not required until the provisions of Section 2.05(b) of the Interstate Sanitation Commission's Water Quality Regulations (as amended) become effective on July 1, 1986. In the interim the wastewater disinfection requirements of the 1981 regulations, regarding seasonal disinfection, will remain in effect.

- ii. The Department may consider applications to undertake scientific studies for the purposes of evaluating the effectiveness of existing and/or proposed disinfection practices. Such studies, including any participating discharges, must be approved in advance by the Department.
- 2. In order to maintain adequate disinfection of all treated wastewaters while protecting both human health and the aquatic biota from the deleterious effects of chlorine and its disinfection by-products, the Department requires the efficient use of chlorine when it is used as a disinfectant.
- 3. The Department encourages the use of alternatives to chlorination for disinfection provided that the following can be demonstrated:
  - i. The alternative method is effective in the removal of viable pathogens and indicators of pathogenic organisms; and
  - ii. The alternative method is safe and will have a less deleterious effect on the health of humans who may ingest or come into contact with waters receiving these discharges than chlorination would; and
  - iii. The alternative method will have a less deleterious effect on the aquatic environment, including its biota, than chlorination would and will not result in a contravention of prevailing surface water quality standards.
- 4. Dechlorination may be required to protect or attain the designated uses set forth in N.J.A.C. 7:9–4.12 and 4.13.
- 5. Unless it can be demonstrated that a disinfectant and its by-products are nonpersistent, the disinfectant and its by-product shall be considered to be persistent for purposes of determining water quality based effluent limitations.

Correction: N.J.A.C. 7:9-5.4(a)1i and ii should have been codified as N.J.A.C. 7:9-5.4(b)1i and ii. See: 17 N.J.R. 1759(c).

## 7:9-5.5 Use of indicators of pollution levels

In applying the minimum treatment requirements of N.J.A.C. 7:9–5.8, the Department may use TOC or COD in place of, or in combination with, BOD when, in the Department's judgement, it would be more appropriate to use them as indicators of pollution levels.

## 7:9-5.6 Dilute industrial process wastewater

For dilute industrial process wastewater, the percent BOD (or other indicator) reduction, as set forth in N.J.A.C. 7:9–5.8, may be modified, upon request, provided it has been demonstrated to the satisfaction of the Department that the highest degree of waste treatment determination to be practicable by the Department will be applied.

## Case Notes

Denial of discharge permit by Department of Environmental Protection was not precluded by department's failure to specify precise amount of pollutant that would be discharged. Matter of Vineland Chemical Co. (Vichem), 243 N.J.Super. 285, 579 A.2d 343 (A.D.1990) certification denied 127 N.J. 323, 604 A.2d 598.

## 7:9-5.7 Effluent standards

- (a) The effluent standard for toxic discharges is that, at a minimum, no effluent shall be more toxic than an LC50, or an EC50, (based on daphnid immobilization) of 50 percent (by volume), as determined by acute definitive bioassay(s) conducted in conformance with N.J.A.C. 7:9–18, using the approved representative species considered to be the most sensitive to the discharge, as designated by the Department.
- (b) The effluent standard for phosphorus discharged to freshwater lakes, ponds, reservoirs, or tributaries to these waterbodies is that, at a minimum, no effluent shall contain more than 1.0 mg/l total phosphorus (as P), as a monthly average, unless the discharger(s) to such a waterbody can demonstrate that a less stringent requirement will not result in a violation of the Surface Water Quality Standards (N.J.A.C. 7:9-4) or that the control of point sources alone, in the absence of effective nonpoint source controls, will not result in a significant reduction of phosphorus loadings to the waterbody.

Administrative Correction: Sentence omitted from (b). See: 23 N.J.R. 2166(a).

## 7:9-5.8 Minimum Treatment Requirements

These minimum treatment requirements apply to all discharges where effluent limitations based upon water quality studies acceptable to the Department have not been developed and are required by N.J.A.C. 7:9–4.5(e)4 or 4.6(a). These requirements are not water quality based effluent limitations. In the case where a water quality study has been accepted and approved by the Department, and water quality based effluent limitations have been established by the Department based upon the study, then the minimum treatment requirements shall no longer apply, unless required by another regulatory agency. Requests to modify existing NJPDES permits containing minimum treatment requirements shall be submitted to the Department in writing in accordance with N.J.A.C. 7:14A–2.12.

			Maximum	
Watershed Atlantic Coastal	Classifications FW2, SE1	% BOD <sub>5</sub> Removal <sup>1</sup> 95	( <b>mg/l)</b> <sup>2</sup> 15	Discharge Type All
Plain				

Watershed	Classifications SC	% BOD <sub>5</sub> Removal <sup>1</sup> 85	BOD <sub>5</sub> Maximum (mg/l) <sup>2</sup> 30	Discharge Type Domestic or Domestic in combination with Industrial
	SC	85	_	Industrial
Delaware River Basin	FW2, SE1, SE2	90	25	All
Dasiii	Main Stem— All Zones	As set forth in Water Quality Standards for the Delaware River Basin; Resolution 67–7 of the DRBC; April 26, 1967 and subsequent re- visions		Ali
Hackensack River Basin	FW2, SE1	90	25	All
Duom	SE2, SE3	85	30	All
Passaic River	FW2	90	25	All
Basin (including	1 112	70	23	All
Newark Bay)	SE2, SE3	85	30	All
Raritan River	FW2	90		All
Basin (including	1 44 2	70		Zui
Raritan Bay and Sandy Hook Bay)	SE1	85		All
Wallkill River Basin	FW2	95	15	All
Hudson River, Kill Van Kull, and Arthur Kill Basins	FW2, SE2, SE3	85	_	All

<sup>&</sup>lt;sup>1</sup> Minimum percent reduction as a monthly average.

Amended by R.1992 d.219, effective May 18, 1992. See: 23 N.J.R. 1493(a), 24 N.J.R. 1884(a).

Deleted 4-hour requirement and replaced with a 30-day average; changed the  $BOD_5$  minimum treatment requirements for the concentrations of 40 mg/L to 30 mg/L for consistency with Federal requirements.

# SUBCHAPTER 6. GROUND WATER QUALITY STANDARDS

## 7:9-6.1 Scope of subchapter

- (a) Unless otherwise provided by statute, the following shall constitute the rules of the Department of Environmental Protection and Energy concerning ground water classification, designated uses of ground water, and ground water quality criteria and constituent standards, pursuant to the Water Pollution Control Act (N.J.S.A. 58:10A–1 et seq.) and the Water Quality Planning Act (N.J.S.A. 58:11A–1 et seq.).
- (b) This subchapter shall provide the basis for protection of ambient ground water quality, through the establishment of constituent standards for ground water pollutants. These constituent standards are applicable to the development of: ground water protection standards pursuant to the New Jersey Pollutant Discharge Elimination System (NJPDES; N.J.A.C. 7:14A); ground water cleanup standards and compliance levels beyond the boundaries of a contaminated site pursuant to applicable regulatory programs; and other requirements and regulatory actions applicable to discharges that cause or may cause pollutants to enter the ground waters of the State, including nonpoint and diffuse sources

regulated by the Department. Other relevant laws through which the Ground Water Quality Standards may be applied include, but are not limited to, the Spill Compensation and Control Act (N.J.S.A. 58:10–23.11 et seq.), the Solid Waste Management Act (N.J.S.A. 13:1E–1 et seq.), the Environmental Cleanup Responsibility Act (N.J.S.A. 13:1K–6 et seq.), the Storage of Hazardous Substances Act (N.J.S.A. 58:10A–21 et seq.), the Realty Improvement Sewerage and Facilities Act (N.J.S.A. 58:11–23 et seq.), and the Pesticide Control Act of 1971 (N.J.S.A. 13:1F–1 et seq.).

(c) This subchapter shall be the Department's primary basis for setting numerical criteria for limits on discharges to ground water and standards for ground water cleanups.

### Case Notes

Private home septic system installed in violation of regulation; violation does not give rise to private cause of action for damages. Jalowiecki v. Leuc, 182 N.J.Super. 22, 440 A.2d 21 (App.Div.1981).

## 7:9-6.2 **Policies**

- (a) It is the policy of this State to restore, enhance and maintain the chemical, physical and biological integrity of its waters, to protect public health, to safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial and other uses of water.
- (b) Discharges to ground water that subsequently discharges into surface waters shall not be permitted by the applicable regulatory program if such discharges would cause a contravention of surface water quality standards applicable to those surface waters. That is, those discharges must achieve compliance with both these standards and the surface water quality standards (N.J.A.C. 7:9–4).
- (c) When existing ground water quality does not meet the constituent standards determined pursuant to N.J.A.C. 7:9–6.7, 6.8 and 6.9(a) and (b), due to human activities, the Department shall, after a review of relevant and available scientific and technical data, determine in the context of the applicable regulatory programs the management actions necessary (including, but not limited to, the requirement of remedial actions) to restore or enhance ground water quality pursuant to the policies of this subchapter.
- (d) The Department shall not approve discharges or activities posing a significant risk of discharges, within the jurisdiction of and subject to regulation by the Pinelands Commission, that would contravene the rules of the Pinelands Commission with regard to the protection of ground water or surface water quality.

## Case Notes

Standards for Total Suspended Solids set by Federal and State regulations; fine assessed appropriate for permit level violations. Lentine Aggregates v. Dept. of Environmental Protection, 4 N.J.A.R. 117 (1981), affirmed per curiam Dkt. No. A-3424-80 (App.Div.1982).

## 7:9-6.3 Construction

This subchapter shall be liberally construed to permit the Department to implement its statutory functions.

<sup>&</sup>lt;sup>2</sup> Maximum monthly average.

## 7:9-6.4 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings:

"ACL" means alternative concentration limit.

"Agricultural water" means water used for crop production, livestock, horticulture and silviculture.

"Alternative concentration limit" (ACL) means a constituent standard or narrative description of actions, discharge controls and water quality requirements that is less stringent than the ground water quality requirements of N.J.A.C. 7:9–6.7, 6.8 and 6.9(a) and (b), due to a Departmental determination pursuant to NJPDES regulations (N.J.A.C. 7:14A–6.15(e)2). In order to approve an ACL, the Department must find that the relevant constituent standard(s) cannot be achieved through technologically practicable means.

"Antidegradation" means a policy to ensure that existing ground water quality (that currently is of higher quality than the water quality criteria in N.J.A.C. 7:9–6.7) is not degraded to the criteria by discharges, but rather remains at a better quality ranging from natural quality at the most stringent, to a limited allowance for degradation at the least stringent. "Nondegradation" is the most stringent case of the antidegradation policy. It prohibits any degradation of ground water quality below existing background water quality by a discharge.

"Antidegradation limit" is the numerical expression (in terms of a concentration or level of a constituent in ground water) of the antidegradation policy.

"Applicable regulatory program" means any of the Department's programs which implement the regulations issued pursuant to the statutes cited in N.J.A.C. 7:9–6.1(b) or in any other regulations that specifically cite this subchapter.

"Aquifer" means a saturated geologic formation(s) or unit(s) which is sufficiently permeable to transmit water to a pumping well in usable and economic quantities. The upper level of an unconfined aquifer may vary over time; "aquifer" applies to the full saturated zone at any time.

"Aquitard" means a hydrogeologic confining unit(s) that exhibits limited permeability, bounding one or more aquifers, that does not readily yield water to wells or springs, but may serve as a storage unit for ground water and may release this water to adjacent ground water units or surface waters. Such confining units are further defined and listed in N.J.A.C. 7:9–6.5(f)1 or may be established through reclassification under N.J.A.C. 7:9–6.10.

"Background water quality" means the concentration of constituents in ground water which is determined to exist directly upgradient of a discharge but not influenced by the discharge, or is otherwise representative of such concentration of constituents as determined using methods and analyses consistent with the requirements of N.J.A.C. 7:14A-6.15(h)7.

"Classification area" means the geographic extent (lateral and vertical) of a geologic formation(s) or unit(s) wherein ground water is classified for designated uses, as described in N.J.A.C. 7:9–6.5.

"Classification exception area" means an area within which one or more constituent standards and designated uses are suspended in accordance with N.J.A.C. 7:9-6.6.

"Constituent" means a specific chemical substance (that is, element or compound) or water quality parameter (for example, temperature, odor, color).

"Constituent standard" means the required maximum level or concentration or the required range of levels or concentrations (as applicable) for a constituent in a classification area, as established in N.J.A.C. 7:9–6.7, 6.8 and 6.9(a) and (b). The constituent standards shall be the basis for the Department's regulation of ground water quality effects of past, present or future discharges to ground water or the land surface, pursuant to applicable authorities as defined in N.J.A.C. 7:9–6.1.

"Conventional water supply treatment" means the chemical and physical treatment of ground water supplies for microbiological contaminants and undesirable naturally occurring substances resulting in treated water that meets all the primary and secondary standards for those constituents stipulated by the New Jersey Safe Drinking Water Act regulations (N.J.A.C. 7:10–12).

"Criteria" means ground water quality criteria.

"Department" means the New Jersey Department of Environmental Protection and Energy.

"Designated use" means a present or potential use of ground water which is to be maintained, restored and enhanced within a ground water classification area, as determined by N.J.A.C. 7:9–6.5. Designated uses may include any human withdrawal of ground water (for example, for potable, agricultural and industrial water), the discharge of ground water to surface waters of the State which support human use or ecological systems, or the direct support of ecological systems.

"Discharge" means an intentional or unintentional action or omission resulting in the releasing, spilling, leaking, pumping, pouring, emitting, emptying or dumping of a pollutant at any time into the waters of the State, onto land or into wells from which it might flow or drain into said waters, or into waters or onto lands outside the jurisdiction of the State, which pollutant enters the waters of the State. "Discharge" includes, without limitation, the release of any pollutant into a municipal treatment works.

"Discharger" means any person, corporation, municipality, government agency or authority or other legal entity, who causes or allows a discharge, either through action or omission.

"Extensive exceedance", as used in N.J.A.C. 7:9–6.10, means a condition where ground water quality in an area exceeds the criteria of N.J.A.C. 7:9–6.7 for one or more contaminants over the vast majority of the subject area for such contaminant(s) and that such exceedances are not attributable to the past or present discharges of a single discharger or any group of active NJPDES permitted discharges.

"FW1" means those surface fresh waters defined as such in the Surface Water Quality Standards, N.J.A.C. 7:9–4, and shown on maps maintained by the Department.

"Ground water" means the portion of water beneath the land surface that is within the saturated zone.

"Hazardous pollutant" means:

- 1. Any toxic pollutant;
- 2. Any substance regulated as a pesticide under the Federal Insecticide, Fungicide and Rodenticide Act, Pub. L.92–516 (7 U.S.C. § 136 et seq.);
- 3. Any substance the use or manufacture of which is prohibited under the Federal Toxic Substances Control Act, Pub.L.94–469 (15 U.S.C. § 2601 et seq.);
- 4. Any substance identified as a known carcinogen by the International Agency for Research on Cancer;
- 5. Any hazardous waste as designated pursuant to section 3 of P.L. 1981, c.279 (N.J.S.A. 13:1E–51) or the "Resource Conservation and Recovery Act," Pub. L.94–580 (42 U.S.C. § 6901 et seq.); or
- 6. Any hazardous substance as defined pursuant to section 3 of P.L. 1976, c.141 (N.J.S.A. 58:10-23.11b).

"Industrial water" means water used for processing, heating or cooling in a manufacturing process.

"Natural Area" means an area of land or water, designated by the Department under N.J.A.C. 7:2–11 and shown on maps maintained by the Office of Natural Lands Management, Division of Parks and Forestry, of the Department, which is owned in fee simple or in which a conservation easement is held by the Department.

"Natural quality" means the concentration or level of constituents which occurs in ground water of a hydrologic unit without the influence of human activity, other than the effects of regional precipitation of air pollutants (for example, acid precipitation). The natural quality for SOCs is established as zero (0.0) except where the SOCs are the result of air transport from outside the State, enter the State from ground water transport of pollutants having their

origins in other states, or are created entirely by natural processes. Where natural quality for other constituents is not ascertainable from generally acceptable scientific studies, the lowest concentrations known to exist within the same or a similar hydrologic unit and setting (that is, depth) within the classification area shall be used to represent the natural quality, provided, however, that for pH, corrosivity and hardness, the most representative concentration shall be used.

"NJPDES" means the New Jersey Pollutant Discharge Elimination System (N.J.A.C. 7:14A).

"NJPDES permit action" means a draft or final NJPDES permit, a permit equivalent, or a decision that a discharge is not to be regulated by NJPDES, as determined pursuant to the NJPDES regulations.

"Organoleptic effect" means an offensive taste, foul odor or other adverse aesthetic consequence caused by pollutants in a water supply and rendering the water supply unfit for potable use.

"PQL" means practical quantitation level.

"Pollutant" means any dredged spoil, solid waste, incinerator residue, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, radioactive substance, thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal or agricultural or other residue discharged into the waters of the State. "Pollutant" includes both hazardous and nonhazardous pollutants. "Industrial, municipal or agricultural or other residue" specifically includes, without limitation, constituents that are not considered wastes (that is, process chemicals) prior to discharge, but which are discharged and may or do degrade natural or existing ground water quality.

"Potable water" means water suitable for household consumption, primarily as drinking water, based upon human health, welfare and aesthetic considerations.

"Practical quantitation level" (PQL) means the lowest concentration of a constituent that can be reliably achieved among laboratories within specified limits of precision and accuracy during routine laboratory operating conditions. "Specified limits of precision and accuracy" are the criteria which have been included in applicable regulations including, but not limited to, those regulations listed at N.J.A.C. 7:9–6.9 or are listed in the calibration specifications or quality control specifications of an analytical method.

"Saturated zone" means the zone in which all the subsurface voids in the rock or soil are filled with water.

"SOC" means Synthetic Organic Chemical.

"Soils" means any naturally occurring or man-made unconsolidated mineral and organic matter on the surface of the earth that has been subjected to and influenced by geologic and environmental factors. "Soils" also includes fill or overburden.

"Source water" means the supply source of water (for example, private wells, public water supply) to a discharger, where the source water becomes part of a discharge.

"Surface waters" means water at or above the land's surface which is neither ground water nor contained within the unsaturated zone, including, but not limited to, the ocean and its tributaries, all springs, streams, rivers, lakes, ponds, wetlands, and artificial waterbodies.

"Synthetic organic chemicals" (SOCs) means any compounds that contain at least one carbon atom and that result from purposeful chemical synthesis, whether as products, by-products, or waste, or from the purposeful refinement of naturally occurring substances. Where a chemical substance is sometimes found in nature and sometimes synthesized, it shall be considered an SOC only to the extent or in the proportion produced or isolated by human activity. Naturally occurring organic chemicals in their natural location are not considered a pollutant pursuant to the Ground Water Quality Standards. An SOC may be considered to be in its natural location, if, by background sampling and modeling, it is shown that such SOC has migrated to that point from the place it naturally occurred.

"Technologically practicable means" means the best available treatment or remedial technology, from an engineering perspective; "best" means that technology which achieves the most stringent numerical values attainable for a constituent at a contaminated site or for a NJPDES-regulated discharge; "available" means field-demonstrated technology although such technology need not be in common commercial use.

"Toxic pollutant" means any pollutant identified pursuant to the Federal Water Pollution Control Act Amendments of 1972 (Pub.L.92–500, 33 U.S.C. § 1251 et seq.), or any pollutant or combination of pollutants, including disease causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly or indirectly by ingestion through food chains, will, on the basis of information available to the Department, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformation, in such organisms or their offspring.

"USEPA" means the United States Environmental Protection Agency.

"Unsaturated zone" (vadose zone) means the subsurface volume between the land's surface and the top of a saturated zone.

"Water quality criteria" means the designated levels or concentrations of constituents that, when not exceeded, will not prohibit or significantly impair a designated use of water. Criteria may be "specific" (listed for each constituent in Table 1), "interim specific" (derived using a standard method, for constituents not listed in Table 1), or "interim generic" (as listed for carcinogenic and non-carcinogenic Synthetic Organic Compounds in Table 2).

"Waters of the State" means the ocean and its estuaries, all springs, streams and bodies of surface or ground water, whether natural or artificial, within the boundaries of this State or subject to its jurisdiction.

"Zone of Contribution" means the volume of a geologic formation or unit that directly contributes ground water to a pumping well over time, or a Well Head Protection Area as defined by the Department pursuant to the Federal Safe Drinking Water Act, Amendments of 1986.

Administrative Corrections to "constituent," "hazardous pollutant".

See: 25 N.J.R. 1552(a).

Amended by R.1993 d.610, effective December 6, 1993.

See: 24 N.J.R. 3983(a), 25 N.J.R. 5569(a).

# 7:9-6.5 Ground water classification system and designated uses

- (a) Ground water shall be classified according to the hydrogeologic characteristics of the ground water resource and the designated use(s) which are to be maintained, restored and enhanced within the classification area. Classifications shall be regional in nature and shall not reflect localized infringements on designated uses due to natural quality or pollution incidents. Ground water users should not assume that existing ground water quality everywhere meets the criteria for classification areas established herein, in view of the potential for variations in natural quality or for localized pollution caused by human activity. Additional uses may be made of ground water in any classification area, subject to applicable Department rules, but these uses are not directly protected through this subchapter.
- (b) The Department shall preferentially protect the primary designated use for each classification area, and shall protect any secondary designated uses to the extent that such uses are viable using water of sufficient quality for the primary use and that the primary use is not impaired.
- (c) There shall be three major classes of ground water, as defined in (d) through (f) below. They are:

Class I Ground Water of Special Ecological Significance

Class II Ground Water for Potable Water Supply

Class III Ground Water With Uses Other Than Potable Water Supply

- (d) The primary designated use for Class I ground water shall be the maintenance of special ecological resources supported by the ground water within the classification area. Secondary designated uses shall be potable water, agricultural water and industrial water to the extent that these uses are viable using water of natural quality and do not impair the primary use, such as by altering ground water quality.
  - 1. Class I–A—Exceptional Ecological Areas: Class I–A ground water shall consist of all ground waters within those classification areas, listed at (d)1iii below or designated by the Department through the reclassification procedure in N.J.A.C. 7:9–6.10, which satisfy either (d)1i or ii below. In addition, ground waters within those areas listed in (d)1iii below are classified as Class I–A ground waters, because the Department has determined that they satisfy the requirements of either (d)1i or ii below. The Department may approve a Class I–A classification area if the ground water within that area:
    - i. Contributes to the transmittal of ground water to surface water in FW1 watersheds; and
      - (1) The area involved is under government ownership (fee simple or conservation easement); or
      - (2) Is owned by a private entity that petitions the Department for reclassification of the property to Class I-A pursuant to N.J.A.C. 7:9-6.10; or
    - ii. Contributes to the transmittal of ground water to the land surface or to surface water in areas of exceptional ecological value. Areas of exceptional ecological value satisfy the conditions described in (d)1ii(1), (2) or (3) below, and also satisfy the conditions described in both (d)1ii(4) and (5) below:
      - (1) Support threatened or endangered species as determined by the United States Department of the Interior pursuant to the Endangered Species Act, 16 U.S.C. 1531 et seq., or by the Department pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A–1 et seq.
      - (2) Support biotic communities within Natural Areas.
      - (3) Serve other exceptional ecological values such as being a part of or supporting state, nationally or internationally rare, threatened or endangered habitats where there is a significant risk that ground water pollution would impair or imperil the ecological values.
      - (4) The quality and transmittal of ground water is essential to the survival or maintenance of the exceptional ecological resource contained within the classification area.
      - (5) The area involved is of sufficient size to provide meaningful control of ground water quality to protect the target resource, based upon the biotic resource and local hydrogeology and is under govern-

- ment ownership (fee simple or conservation easement), or is owned by a private entity that petitions the Department for reclassification of the property to Class I–A pursuant to N.J.A.C. 7:9–6.10.
- iii. Ground water within the following areas are herein classified as Class I-A:
  - (1) Watersheds of FW1 surface waters;
  - (2) The following Natural Areas as designated by the Department pursuant to N.J.A.C. 7:2–11:

Absegami Natural Area

Allamuchy Natural Area

Batsto Natural Area

Bearfort Mountain Natural Area

Bear Swamp East Natural Area

Black River Natural Area

Cape May Point Natural Area

Cedar Swamp Natural Area

Cheesequake Natural Area

Cook Natural Area

Dryden Kuser Natural Area

Dunnfield Creek Natural Area

Farny Natural Area

Hacklebarney Natural Area

Island Beach Northern Natural Area

Island Beach Southern Natural Area

Ken Lockwood Gorge Natural Area

Manahawkin Natural Area

Oswego River Natural Area

Parvin Natural Area

Ramapo Lake Natural Area

Rancocas Natural Area

Sunfish Pond Natural Area

Swimming River Natural Area

Tillman Ravine Natural Area

Troy Meadows Natural Area

Washington Crossing Natural Area

Wawayanda Hemlock Ravine Natural Area

Wawayanda Swamp Natural Area

Whittingham Natural Area

- 2. Class I–PL—Pinelands: The classification area for Class I–PL consists of all ground water in the Cohansey and Kirkwood Formations located within the pinelands area as designated by the Pinelands Protection Act, N.J.S.A. 13:18A–1 et seq. (as indicated in figure 1 in the Appendix, incorporated herein by reference), other than those ground water areas classified as Class I–A.
  - i. Class I–PL (Preservation Area): The primary designated use is the support and preservation of unique and significant ecological resources of the Pinelands, through the restoration, maintenance and preservation of ground water quality in its natural state. Secondary designated uses include compatible agricultural uses in conformance with N.J.A.C. 7:50–6 et seq. and potable water uses.
  - ii. Class I–PL (Protection Area): The primary designated use is the preservation of Pinelands plant and animal species and their habitats through the protection and maintenance of the essential characteristics of Pinelands ground water quality. Secondary designated uses include potable and agricultural water.
- (e) Class II ground waters have a designated use of the provision of potable ground waters with conventional water supply treatment, either at their current water quality (Class II-A) or subsequent to enhancement or restoration of regional water quality so that the water will be of potable quality with conventional water supply treatment (Class II-B). Both existing and potential potable water uses are included in the designated use.
  - 1. Class II-A shall consist of all ground water of the State, except for ground water designated in Classes I, II-B or III. The primary designated use for Class II-A ground water shall be potable water and conversion (through conventional water supply treatment, mixing or other similar technique) to potable water. Class II-A secondary designated uses include agricultural water and industrial water.
  - 2. Specific Class II-B areas, designated uses and constituent standards will be established through rule or through reclassification pursuant to N.J.A.C. 7:9-6.10. The designated uses of Class II-B areas generally may include any reasonable use (other than potable use). Designated uses of Class II-B ground water shall not exacerbate existing ground water pollution or impede the ability to enhance or restore the quality of the ground water so that it will be potable or convertible to potable use with conventional water supply treatment, mixing or other similar techniques. Class II-B shall consist only of ground waters:
    - i. That exhibit extensive exceedance of one or more of the ground water quality criteria in N.J.A.C. 7:9–6.7(c) within the proposed Class II–B area, due to past discharges of ground water pollutants;

- ii. Where restoration of the ground water, where polluted, cannot be achieved using technologically practicable means:
- iii. Where the conditions listed in (e)2(1) through (4) below exist within the proposed Class II-B area, and there is no indication in the projections of the Department, public water supply systems serving the area, or municipalities of the area that those conditions will cease to exist within the next 25 years:
  - (1) No public community water supply well or Zone of Contribution for such a well exists;
  - (2) Less than five percent of the potable water supply for the area subject to the petition is derived from ground water from within the proposed Class II-B area:
  - (3) Less than five percent of the potable water supply for any municipality (or portion thereof) within the Class II-B area is derived from ground water from within the proposed Class II-B area; and
  - (4) No significant concentration of domestic water supply wells exists;
- iv. Where no significant risk of pollution migration into Class I or II-A areas exists;
- v. Where a reliance on natural attenuation processes can be relied on over the vast majority of the area for the restoration of ground water quality for criteria identified pursuant to (e)2i above and does not pose a significant risk to public health, safety and welfare; and
- vi. Where the reclassification requirements of N.J.A.C. 7:9-6.10 are met.
- 3. Class II-B Classification Areas—(Reserved)
- (f) The Class III ground waters are not suitable for potable water due to natural hydrogeologic characteristics or natural water quality. Class III includes geologic formations or units that are aquitards or have a natural quality that is unsuitable for conversion to potable water (for example, saline ground water).
  - 1. Class III-A ground water consists of ground water in those aguitards that are described below. The primary designated use for Class III-A ground water is the release or transmittal of ground water to adjacent classification areas and surface water, as relevant. Secondary designated uses in Class III-A include any reasonable uses. Class III-A ground water includes portions of the saturated zones (that meet the criteria below) of the Woodbury Formation, Merchantville Formation, Marshalltown Formation, Navesink Formation, Hornerstown Formation, aquitard formations of the Potomac-Raritan-Magothy aquifer system and the Kirkwood aquifer system, portions of the glacial moraine and glacial lake deposits, and other geologic units having the characteristics of an aquitard, excepting Class I areas. These named aquitards (excluding glacial units) outcrop approximately in municipalities depicted in Figure 2 in the Appendix. Class III-A areas shall have the following characteristics:

- i. Average at least 50 feet in thickness within the Class III-A area;
- ii. Have a typical hydraulic conductivity of approximately 0.1 ft/day or less within the Class III-A area; and
- iii. Have an areal extent within the Class III-A area of at least 100 acres.
- 2. Any interested party may provide evidence to the Department to demonstrate that an area meets the descriptive criteria of Class III–A. Upon review and verification of such evidence the Department may provide concurrence that the Class III–A classification applies to the area of interest.
- 3. Class III-B ground water consists of all geologic formations or units which contain ground water having natural concentrations or regional concentrations (through the action of salt-water intrusion) exceeding 3,000 mg/l Chloride or 5,000 mg/l Total Dissolved Solids, or where the natural quality of ground water is otherwise not suitable for conversion to potable uses. The designated uses for Class III-B ground water consist of any reasonable uses for such ground water other than potable water, using water of existing quality. The classification area includes ground water in parts of formations as indicated in Figures 3 through 5 in the Appendix.
- 4. Class III-B areas are subject to field verification wherever necessary. Areas not indicated on the maps may also qualify as Class III-B, subject to Department concurrence through an applicable regulatory program. The precise borders of Class III-B areas shall be confirmed using site specific data in the context of applicable regulatory programs. Any interested party may provide evidence to the Department to demonstrate that an area meets the descriptive criteria of Class III-B. Upon review and verification of such evidence the Department may provide concurrence that the Class III-B classification applies to the area of interest.

## 7:9-6.6 Exceptions to the classification system

(a) The Department may establish a Classification Exception Area only when the Department determines that constituent standards for a given classification are not being met or will not be met in a localized area due to: natural quality; localized effects of a discharge approved through a NJPDES permit action; pollution caused by human activity within a contaminated site as defined by the Department in the context of an applicable regulatory program (for example, Site Remediation Program Oversight Document); or an ACL as approved by the Department pursuant to NJPDES. In the context of an applicable regulatory program, the Department shall determine or describe appropriate boundaries for each Classification Exception Area and include the written description of the boundaries in the appropriate oversight document or permit action along with specifications as to which constituents the exception applies. Classi-

- fication Exception Areas may only be established when constituent standards are not being met or will not be met due to the conditions set forth above and shall not be established for the purpose of sanctioning violations of constituent standards.
- (b) Where natural quality for any constituent contravenes the criteria established in N.J.A.C. 7:9–6.7 such that the primary designated use is not viable within a limited area, the Department may establish a Classification Exception Area within which the Department shall define appropriate designated uses and constituent standards, based upon the natural quality. Such Classification Exception Areas shall remain in effect as long as the primary designated use of the original classification area is not viable using ground water at natural quality.
- (c) Where the Department defines, through a NJPDES permit action, an area of temporary noncompliance with specific constituent standards related to the localized effects of a permitted discharge, the ground water within that area of noncompliance shall be a Classification Exception Area for those constituents only. All other constituent standards shall apply within the Classification Exception Area. All designated uses in these Classification Exception Areas will be suspended during the life of the Classification Exception Area. Constituent standards of the surrounding classification area shall apply at the perimeter of the Classification Exception Area for the specified constituents. The Classification Exception Area shall have the same life as the approved NJPDES permit action, after which the original classification, designated uses and constituent standards shall apply.
- (d) Where a discharge has resulted or will result in localized ground water quality that contravenes one or more constituent standards, the Department may define that area as a Classification Exception Area for specified constituents pursuant to (or in accordance with) a NJPDES permit action or a Department-approved remedial action in the context of an applicable regulatory program. All other constituent standards shall apply within the Classification Exception Area. All designated uses in each Classification Exception Area will be suspended during the life of the Classification Exception Area. Constituent standards of the surrounding classification area shall apply at the perimeter of the Classification Exception Area for the specified constituents. The Department shall restrict or require the restriction of potable ground water uses within any Classification Exception Area where there is or will be an exceedance of the Primary Drinking Water Quality Standards (in N.J.A.C. 7:10). Where the Department defines the Classification Exception Area through a NJPDES permit action, the Classification Exception Area shall have the same life as the approved NJPDES permit action, after which the original classification, designated uses and constituent standards shall apply. Other regulatory actions creating the Classification Exception Area shall specify the longevity of the

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exception, after which the original classification, designated uses and constituent standards shall be applicable.

#### Case Notes

Department of Environmental Protection's arsenic discharge standard refers to more than just inorganic arsenic. Matter of Vineland Chemical Co. (Vichem), 243 N.J.Super. 285, 579 A.2d 343 (A.D.1990) certification denied 127 N.J. 323, 604 A.2d 598.

Department of Environmental Protection could interpret administrative consent order to allow elevated arsenic discharge during testing only after the department determined that the manufacturer could achieve the lower standard. Matter of Vineland Chemical Co. (Vichem), 243 N.J.Super. 285, 579 A.2d 343 (A.D.1990) certification denied 127 N.J. 323, 604 A.2d 598.

## 7:9-6.7 Ground water quality criteria

- (a) Ground water quality criteria for Class I–A areas shall be the natural quality for each constituent. Class I–A is a nondegradation classification where natural quality shall be maintained or restored. The Department shall not approve any discharge to ground water nor approve any human activity which results in a degradation of natural quality within a Class I–A classification area.
- (b) Ground water quality criteria for Class I-PL are as follows:
  - 1. Within Class I–PL (Preservation Area), ground water quality criteria shall be the natural quality for each constituent. Class I–PL (Preservation Area) is a nondegradation classification in which natural quality shall be maintained or restored. The Department shall not approve any discharge or any other activity which would result in the degradation of natural quality within a Class I–PL (Preservation Area) classification area. However, the provisions of this paragraph (b)1 shall not apply to activities that are in conformance with N.J.A.C. 7:50–6 et seq.
  - 2. Ground water quality criteria for Class I–PL (Protection Area) shall be the background water quality. The Department shall not approve any discharge or any other activity which would result in the degradation of background water quality in the Class I–PL (Protection Area) classification area. However, the provisions of this paragraph (b)2 shall not apply to activities that are in conformance with N.J.A.C. 7:50–6 et seq.
  - 3. The Department shall not approve any discharge to ground water within the Class I–PL classification area which results in a violation of the Surface Water Quality Standards applicable to the Pinelands National Reserve, as established in N.J.A.C. 7:9–4 or successor rules.
- (c) Ground water quality criteria for Class II-A are as follows:

- 1. Specific criteria for ground water quality in Class II–A areas are listed in Table 1 in the Appendix.
- 2. Where a specific criterion is not listed for a constituent in Table 1, the Department may establish interim specific criteria for Class II–A ground water based upon the weight of evidence available regarding each constituent's carcinogenicity, toxicity, public welfare or organoleptic effects, as appropriate for the protection of the potable water use. Interim specific criteria may be established on a case by case basis using the methods listed in (c)3 below, which are the same methods applied to the development of the specific criteria in Table 1. Interim specific criteria shall be replaced with specific criteria as soon as reasonably possible by rule.
- 3. Interim specific criteria may be derived by the Department for any constituent, in accordance with the methodologies in (c)5 below, and using the risk assessment approach in (c)4 below. The Department shall maintain and make available to the public a listing of all interim specific criteria and the supplemental information used in their derivation.
  - i. The human health-based criteria are derived from the toxicity factor (carcinogenic potency slope or Reference Dose), the exposure assumptions for drinking water and a relative source contribution factor (for non-carcinogens) which is used to account for the contribution from other sources of exposure including air and food. The Department assumes a 20 per cent relative source contribution factor when sufficient quantitative data are not available on the contribution of each source of exposure. Data sources for carcinogenic potency slope or Reference Dose shall be used in the following order of priority:
    - (1) Information which forms the basis for drinking water standards adopted by the Department pursuant to the Safe Drinking Water Act, N.J.S.A. 58:12A–1 et seq.;
    - (2) The United States Environmental Protection Agency (USEPA) Integrated Risk Information System (IRIS) data base;
    - (3) The USEPA's Health Effects Assessment Summary Tables (HEAST);
    - (4) The Department may develop health-based criteria which differ from those based on the sources cited in (c)3i(1) through (3) above if warranted by convincing scientific evidence. For contaminants which are not addressed in the sources cited in (c)3i(1) through (3) above, the Department may develop health-based criteria based on review of pertinent scientific data.
  - ii. The final calculations are rounded to one significant figure for deriving the criteria for each chemical.

- 4. The risk assessment approach for derivation of the health-based criteria for each contaminant will be determined by its strength of evidence (see 50 FR 46880, 46884–86 (1985), National Primary Drinking Water Regulations, Volatile Synthetic Organic Chemicals, and any successor documents) for human carcinogenicity, the risk levels given below, and the exposure assumptions and models listed in (c)3 above.
  - i. For contaminants classified in Group A or Group B, the Class II–A criteria are calculated from the potency factor based on additional lifetime cancer risk of  $1 \times 10^{-6}$ .
  - ii. For contaminants classified in Group C, the Class II–A criteria are calculated by application of an additional uncertainty factor of 10 to the chronic reference dose. If no reference dose is available from the sources cited in (c)3i above, the Class II–A criteria are calculated from the potency factor or unit risk factor based on additional lifetime cancer risk of 1 x 10<sup>-5</sup>.
  - iii. For contaminants classified in Group D or Group E, the Class II-A criteria are calculated from the chronic reference dose.
  - iv. For lead, the Department has determined that a Class II-A criterion of five ug/L is appropriate as a conservative application of the regulations of the United States Environmental Protection Agency seeking a maximum concentration of five ug/L in drinking water subsequent to treatment.
- 5. The following equations shall be used for the derivation of interim specific criteria for each constituent:
  - i. For Carcinogens:

Criterion = 
$$\frac{(1 \times 10^{-6}) \times 70 \text{ kg} \times 1000 \text{ ug/mg}}{q_1^* \text{ (mg/kg/day)}^1 \times (2 \text{ L/day)}}$$

Where:

1 ×  $10^{-6}$  = upper bound lifetime excess cancer risk (1 ×  $10^{-5}$  used for Group C chemicals lacking RfD)

70 kg = assumed weight of average adult q<sub>1</sub>\* = carcinogenic potency factor (mg/kg/day)<sup>-1</sup> = assumed daily water consumption

 $q_1^*$  = Risk/Dose

 $q_1^* (mg/kg/day)^{-1} =$ 

Where:

 $1 \times 10^{-6}$  = risk level

animal dose = dose to experimental animals predicted to result in 1 x 10<sup>-6</sup> risk

(W<sub>A</sub>/W<sub>H</sub>)<sup>1/3</sup> = factor for extrapolating from animals to humans based on body surface area

 $W_A$  = assumed weight of animal: for mice - 0.03 kg

for rats - 0.35 kg

 $W_H$  = assumed weight of human = 70 kg For mice  $(W_A/W_H)^{1/3} = 0.075$ 

For rats  $(W_A/W_H)^{1/3} = 0.17$ 

ii. For non-carcinogens:

Criterion =  $\frac{\text{RfD (mg/kg/day)} \times 70 \text{ kg} \times 1000 \text{ ug/mg} \times \text{RSC}}{2 \text{ L/day}}$ 

Where:

RFD = Reference Dose

70 kg = assumed weight of average adult RSC = relative source contribution 2 L/day = assumed daily water consumption

- 6. Where no specific criterion exists for a Synthetic Organic Chemical, the interim generic criteria for Synthetic Organic Chemicals in Table 2 in the Appendix shall apply until an interim specific criterion has been established in accordance with (c)1, 2, 3, 4, and 5 above.
- (d) The ground water quality criteria for Class II-B ground waters shall be the Class II-A criteria.
- (e) The ground water quality criteria for Class III-A areas shall be the criteria of the most stringent classification for vertically or horizontally adjacent ground waters that are not Class III-A, unless the Department concludes (in the context of an applicable regulatory program) that there is no significant potential for the migration of ground water pollutants to that classification area. If there is significant potential for pollutant migration, the criteria shall be those of the classification area determined to be downgradient of the Class III-A area. If there is no significant potential for pollutant migration, criteria shall be determined for such Class III-A areas on a case by case basis in the context of applicable regulatory programs. In each case where there is no significant potential for pollutant migration, the criteria shall be no more stringent than necessary to ensure that there will be no:
  - 1. Impairment of existing uses of the ground water;
  - 2. Resulting violation of Surface Water Quality Standards;
  - 3. Release of pollutants to the ground surface, structures or air in concentrations that pose a threat to human health;
  - 4. Reasonable potential for a change in hydraulic gradient that could cause pollutants to migrate from the Class III-A area to any classification area other than Class III.
- (f) The ground water quality criteria for Class III-B areas shall be determined on an area by area basis in response to case by case needs, in the context of applicable regulatory programs. In each case, the criteria shall be no more stringent than necessary to ensure that there will be no:
  - 1. Impairment of existing uses of ground water;

- 2. Resulting violation of Surface Water Quality Standards:
- 3. Release of pollutants to the ground surface, structures or air in concentrations that pose a threat to human health;
- 4. Violation of constituent standards for downgradient classification areas to which there is a significant potential for migration of ground water pollutants.
- (g) Where ground water that receives pollutants from a discharge(s) subsequently flows to surface waters, the Department shall regulate such discharges as necessary so as not to exceed the Surface Water Quality Standards applicable to that body of surface water. The discharger may request application of only the ground water quality standards by showing, to the satisfaction of the Department, and in the context of the applicable regulatory procedure, that the flow of ground water pollutants into the surface water will not cause a violation of the Surface Water Quality Standards.
- (h) For constituents for which specific or interim specific criteria have been derived, the Department may evaluate potential toxicological interactions between or among contaminants in ground water by the sum of the risk levels of contaminants with health-based criteria that are based on carcinogenic risk, and by utilizing the hazard index approach described in the USEPA Guidelines for the Health Risk Assessment of Chemical Mixtures (51 FR 34014 (1986), and any subsequent revisions) for noncarcinogens. Additional actions and more stringent criteria may be required when either of the following conditions exists:
  - 1. The total risk level for all Group A or Group B contaminants present in ground water exceeds 1 x 10<sup>-4</sup>: or
  - 2. There is a Hazard Index of greater than one for noncarcinogenic effects.
- (i) The Department shall regulate discharges for compliance with each specific, interim specific and generic criterion applicable to the discharge pursuant to this section.

Petition for Rulemaking. See: 27 N.J.R. 388(b).

## 7:9-6.8 Antidegradation policy

(a) The Department shall protect from significant degradation ground water which is of better quality than the criteria in N.J.A.C. 7:9–6.7. Antidegradation limits shall be used as the basis for the development of constituent standards applicable to discharges, as modified by N.J.A.C. 7:9–6.9(a) and (b). Where the concentration of a constituent at background water quality currently contravenes the criteria in N.J.A.C. 7:9–6.7, no further degradation of ground water quality shall be allowed for that constituent.

(b) For constituents whose concentrations in background water quality are less than the ground water quality criteria in N.J.A.C. 7:9–6.7 (excluding those constituents whose criteria are expressed as a range of concentrations), the antidegradation limits shall be determined by adding to background water quality concentration the difference between the ground water quality criterion and the background water quality concentration times the following percentages for each of the corresponding classes of ground water as follows:

Class I-A 0%

Class I-PL 0%

Class II-A 50%

The calculation of antidegradation limits may be represented by the following formula:

Constituent Standard =  $BWQ + (GWQC - BWQ) \times \%$ 

where BWQ is the background water quality for a given constituent, GWQC is the ground water quality criterion and % is the antidegradation factor given above.

- (c) The antidegradation limits for Class II-B are equal to the Class II-B criteria stated in N.J.A.C. 7:9-6.7(d). Where the concentration of a constituent at background water quality currently contravenes the criteria, no further degradation of ground water quality shall be allowed for that constituent.
- (d) The antidegradation limits for Class III-A are equal to the Class III-A criteria established pursuant to N.J.A.C. 7:9-6.7(e).
- (e) The antidegradation limit for Class III-B is equal to the Class III-B criteria established pursuant to N.J.A.C. 7:9-6.7(f).

Administrative Correction to (b). See: 25 N.J.R. 1552(a).

# 7:9-6.9 Constituent standard modifications and practical quantitation levels

- (a) When constituents at background water quality exceed the criteria in N.J.A.C. 7:9–6.7, the Department shall consider the following modifications in the development of constituent standards in the context of applicable regulatory programs:
  - 1. For discharges that derive their source water from directly upgradient of the discharge, the constituent standards shall not be more stringent than the background water quality (that is, the source water quality);
    - 2. For other discharges:

- i. In areas where the criteria for the constituent are exceeded within the area due to natural quality, the constituent standards shall be established as the background water quality.
- ii. In other areas, the constituent standards shall be established such that the volume and concentration of ground water exceeding the criteria are not increased by discharges.
- (b) The Department may define Classification Exception Areas as provided for in N.J.A.C. 7:9–6.6 within which the provisions of N.J.A.C. 7:9–6.7, 6.8 and (a) above do not apply regarding specified constituents.
- (c) Where a constituent standard (the criterion as adjusted by the antidegradation policy and applicable criteria exceptions); is of a lower concentration than the relevant PQL (Table 1 in the Appendix), the Department shall not (in the context of an applicable regulatory program) consider the discharge to be causing a contravention of that constituent standard so long as the concentration of the constituent in the affected ground water is less than the relevant PQL.
  - 1. Where interim specific criteria are derived by the Department, interim PQLs shall also be derived for those constituents as appropriate.
  - 2. No PQLs other than those listed in Table 1 in the Appendix are applicable to or shall be derived for interim generic criteria.
  - 3. Selection and derivation of PQLs shall be as follows:
    - i. PQLs shall be rounded to one significant figure using standard methods.
    - ii. PQLs listed in Table 1 were, and additional PQLs shall be, derived or selected for each constituent using the most sensitive analytical method providing positive constituent identification from (c)3ii(1) through (5) below, in that order of preference:
      - (1) PQLs for a specific constituent and analytical method using the USEPA 500 series methods, which PQLs were derived through scientific studies conducted by the Department in support of the Safe Drinking Water Program;
      - (2) PQLs for a specific constituent and analytical method using the USEPA 500 series or 600 series methods (in order of preference, and provided that the method is currently in use by Department-certified laboratories), which PQLs were adopted by the USEPA in support of the Safe Drinking Water Program;
      - (3) PQLs derived by multiplying times a factor of five, a median, Interlaboratory Method Detection Limit (MDL). The Interlaboratory MDL is derived from verified MDL data from Department-certified

- laboratories for the USEPA 500 series or 600 series methods (in order of preference);
- (4) PQLs derived by multiplying times a factor of 10, the MDL published by EPA for a specific constituent and analytical method for the USEPA 500 series or 600 series methods (in order of preference);
- (5) PQLs for aqueous matrices published by EPA in "Test Method for Evaluating Solid Waste," Publication SW846, Third Edition, November 1986, and successor publications, incorporated herein by reference.
- iii. The Department may approve an alternative PQL. An alternative PQL shall be approved when the evidence (in the context of an applicable regulatory program) establishes that:
  - (1) Based upon site-specific, ground water matrix considerations, a PQL listed in Table 1 for a constituent is not valid;
  - (2) An alternative PQL is more appropriate for that constituent with regard to compliance with this subchapter;
  - (3) The alternative PQL has been determined through rigorous laboratory analysis using methods appropriate to the site-specific ground water matrix and constituent(s), including, without limitation, the derivation of an MDL using the methodology specified by Appendix B of 40 CFR Part 136; and
  - (4) The alternative PQL does not result in nondetection of any target constituent due to masking effects of other target constituents, non-target constituents, or natural substances.
- iv. The approval of an alternative PQL shall be applicable to the regulation of ground water quality affected by the discharge for which it is derived, and its approval and utilization shall be subject to the same procedural requirements as any other aspect of the regulatory decision.
- 4. Where ground water pollutants affect surface water quality within the meaning of N.J.A.C. 7:9–6.7(g), more sensitive analytical techniques such as bioassays or bioaccumulation assays may be required by the Department.

## 7:9-6.10 Procedures for reclassification of ground water

- (a) Reclassification of ground water areas shall be accomplished through rulemaking in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq.
- (b) Any interested person may seek to have any ground water area reclassified by filing a petition with the Department. For the purposes of this subsection, interested persons shall include, but not be limited to:

- 1. Any State, county or municipal governmental entity with jurisdiction over the area that is proposed for reclassification; and
- 2. Any person residing or discharging in the area that is proposed for reclassification.
- (c) Petitions shall comply with and shall be reviewed in compliance with N.J.S.A. 52:14B-4 and N.J.A.C. 7:1-1.2.
- (d) For purposes of this subsection, ground water areas subject to petition for reclassification shall constitute at least a significant portion of one or more geologic units or formations. In no event shall a reclassification area consist only of an area underlying property owned by a single person (except in the case of reclassification to and from Class I–A), an area affected only by one discharge, or an area affected only by a set of discharges owned or controlled by a single person.
- (e) In setting forth the reasons for its petition, the petitioner shall describe the proposed reclassification area (both lateral and vertical), and shall include appropriate ground water quality and hydrogeologic analyses, as well as statements regarding the environmental, economic and social impacts of the proposed reclassification.
- (f) In order to grant a petition to propose a rule amendment to apply a more stringent classification to a ground water area, the Department must find that the petitioner has established that the subject area has the characteristics of the more stringent classification.
- (g) In order to grant a petition to propose a rule amendment to apply a less stringent classification to a ground water area, the Department must find that the petitioner has established that:
  - 1. The designated use cannot be maintained in the subject area;
  - 2. Based upon an analysis of background water quality of constituent standards in downgradient areas and of ground water flow vectors and gradients, contaminant attenuation, flow barriers and potential for induced movement, the reclassification will not result in significant risk of the following:

- i. Impairment to existing uses of ground water or significant potential for pollutant migration to downgradient classification areas;
- ii. Degradation of downgradient surface water quality in violation of the surface water quality standards;
- iii. Degradation of the quality of source water for public water supply wells in violation of the provisions of N.J.A.C. 7:9-6.7, 6.8 and 6.9; or
- iv. Significant threats to public health, safety and welfare; and
- 3. The subject area has the characteristics of the less stringent classification.
- (h) The petitioner shall provide public notice of the petition by mailing a copy of a summary of the petition, including all subsequent amendments, to:
  - 1. All owners of residences or facilities identified by local health officials or by the petitioner during the preparation of the petition as operators of wells in the subject area;
  - 2. The mayor or governing body, and the planning board and environmental commission of all municipalities in which any part of the subject area is located;
  - 3. All public water systems utilizing ground or surface water from the subject area;
  - 4. All local or county health agencies with jurisdiction over any part of the subject area; and
  - 5. Any other interested party who requests a copy of the petition summary in writing to either the Department or the petitioner.
- (i) The petitioner shall cause public newspaper notice of the petition to be published, in two daily, and one weekly, newspapers (if available) that are distributed in the municipalities of the subject area, which notice shall include a brief summary of the petition.

## 7:9-6.11 Severability

If any provision of this subchapter or any application of any such provision is held to be invalid, such invalidity shall not affect any other provision or application, and to this end, the provisions of this subchapter are declared to be severable.

## **APPENDIX**

TABLE 1
SPECIFIC GROUND WATER QUALITY CRITERIA—CLASS II–A AND PRACTICAL QUANTITATION LEVELS

SPECIFIC GROUND WATER	QUALITY CRITERIA—CL	Ground Water	Practical	Higher of PQLs and
Constituent	CASRN	Quality Criteria*	Quantitation Levels (PQLs)*	Ground Water Quality Criteria (ug/L)*
Acenaphthene	83–32–9 208–96–8	400 NA	10 10	400 NA
Acenapthylene Acetone	67–64–1	700	NA	700
Acrolein	107-02-8	NA	50	NA
Acrylamide	79–06–1	0.008	NA	0.008
Acrylonitrile	107-13-1	0.06	50	50
Adipates (Di(ethylhexyl)adipate)	103-23-1	NA	6	NA
Alachlor	15972-60-8	0.43	2	2
Aldicarb sulfone	1646-88-4	2	3	3
Aldrin	309-00-2	0.002	0.04	0.04
Aluminum	7429–90–5	200	200	200
Ammonia	120-12-7	500 2,000	200 10	500 2,000
Anthracene Antimony	7440-36-0	2,000	20	2,000
Arsenic (Total)	7440–38–2	0.02	8	8
Asbestos	1332–21–4	$7 \times 106 f/L > 10 um^2$	105f/L>10uma	7 × 106f/L> 10uma
Atrazine	1912-24-9	3	1	3
Barium	7440-39-3	2,000	200	2,000
Benz(a)anthracene	56–55–3	NA	10	NA
Benzene	71-43-2	0.2	1	1
Benzidine	92-87-5	0.0002	50	50
Benzyl Alcohol	100–51–6	2,000	NA	2,000
Benzo(a)pyrene (BaP)	50-32-8	NA	20	NA
3,4-Benzofluoranthene (Benzo(b)fluoranthene) Benzo(ghi)perylene	205–99–2 191–24–2	NA NA	10 20	NA
Benzo(k)fluoranthene	207-08-9	NA NA	20	NA NA
Beryllium	440-41-7	0.008	20	20
alpha-BHC (alpha-HCH)	319–84–6	0.006	0.02	0.02
beta-BHC (beta-HCH)	319–85–7	0.2	0.04	0.2
gamma-BHC (gamma-HCH/Lindane)	58-89-9	0.2	0.2	0.2
Bis(2-chloroethyl) ether	111-44-4	0.03	10	10
Bis(2-chloroisopropyl) ether	39638-32-9	300	10	300
Bis(2-ethylhexyl) phthalate	117-81-7	3	30	30
Bromodichloromethane (Dichlorobromomethane)	75–27–4	0.3	1	1
Bromoform Butulbourd abtholote	75–25–2	4	0.8	4
Butylbenzyl phthalate Cadmium	85–68–7 7440–43–9	100 4	20 2	100 4
Carbofuran	1563-66-2	40	7	40
Carbon tetrachloride	56-23-5	0.4	2	2
Chlorobenzene	108-90-7	4	2	4
Chlordane	57-74-9	0.01	0.5	0.5
Chloride	16887-00-6	250,000	2,000	250,000
Chloroform	67-66-3	6	1	6
4–Chloro–3–methyl (o-chloro-m-cresol)	59-50-7	NA	20	NA
2–Chlorophenol	95–57–8	40	20	40
Chlorpyrifos Chromium (Total)	12921-88-2	20	0.2	20
Chromium (Total) Chrysene	7440–47–3 218–01–9	100 NA	10 20	100 NA
Color	210-01-9	10 CU	20 CU	20 CU
Copper	7440-50-8	1,000	1,000	1,000
Cyanide	57–12–5	200	40	200
2,4-D	94-75-7	70	5	70
Dalapon	75–99–0	200	10	200
4,4'-DDD (p,p'-TDE)	72-54-8	0.1	0.04	0.1
4,4'-DDE	72–55–9	0.1	0.04	0.1
4,4'-DDT	50-29-3	0.1	0.06	0.1
Demeton	8065-48-3	0.3	NA	0.3
Dibenz(a,h)anthracene	53-70-3	NA 10	20	NA 10
Dibromochloromethane (Chlorodibromomethane) 1,2–Dibromo–3–chloropropane (DBCP)	124-48-1 96-12-8	10 NA	1 2	10 NA
Di-n-butyl phthalate	84–74–2	900	20	900
1,2–Dichlorobenzene	95–50–1	600	5	600
1,3–Dichlorobenzene	541-73-1	600	5	600
1,4-Dichlorobenzene	106-46-7	75	5	75
3,3'-Dichlorobenzidine	91-94-1	0.08	60	60
1,1-Dichloroethane	75–34–3	70	NA	70
1,2-Dichloroethane	107-06-2	0.3	2	2
1,1–Dichloroethylene	75–35–4	1	2	2
cis-1,2-Dichloroethylene	156-59-2	10	2	10
trans-1,2-Dichloroethylene	156-60-5	100	2	100
2,4–Dichlorophenol	120-83-2	20	10	20
1,2-Dichloropropane	78–87–5 10061–01–5	0.5 NA	1 5	1 NA
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	10061-01-5	NA NA	5 7	NA NA
trans-1,5-Diemoropropene	10001-02-0	11/2	,	14/3

		Ground Water Ouality	Practical Ouantitation	Higher of PQLs and Ground Water Quality
Constituent	CASRN	Criteria*	Levels (PQLs)*	Criteria (ug/L)*
1,3-Dichloropropene (cis and trans)	542-75-6	0.2	NA	.02
Dieldrin	60-57-1	0.002	0.03	0.03
Diethyl phthalate	84-66-2	5,000	10	5,000
2,4–Dimethylphenol	105–67–9	100	. 20	100
Dimethyl phthalate	131–11–3	NA	10	NA .
4,6-Dinitro-o-cresol	534–52–1	NA 10	60	NA 40
2,4–Dinitrophenol	51-28-5	10 0.05	40 10	40 10
2,4–Dinitrotoluene/2,6–Dinitrotoluene mixture	121–14–2 606–20–2	NA	10	NA
2,6-Dinitrotoluene Di-n-octyl phthalate	117-84-0	100	NA	100
Dinoseb	88-85-7	7	2	7
1,2–Diphenylhydrazine	122–66–7	0.04	NA	0.04
Diquat	85-00-7	20	NA	20
Endosulfan	115-29-7	0.4	NA	0.4
alpha-Endosulfan (Endosulfan I)	959-98-8	0.4	0.02	0.4
beta-Endosulfan (Endosulfan II)	3-213-65-9	0.4	0.04	0.4
Endosulfan sulfate	031-07-8	0.4	0.03	0.4
Endothall	145–73–3	100	NA 0.04	100
Endrin	72–20–8 106–89–8	2 4	0.04 NA	2 4
Epichlorohydrin Ethylbenzene	100-69-6	700	5	700
Ethylene dibromide	106-93-4	0.0004	0.05	0.05
Fluoranthene	206-44-0	300	. 10	300
Fluorene	86–73–7	300	10	300
Fluoride	16984-48-8	2,000	500	2,000
Foaming agents (ABS/LAS)		500	0.5	500
Glyphosate	071-83-6	700	NA	700
Hardness (as CaCO <sub>3</sub> )		250 mg/L	10 mg/L	250 mg/L
Heptachlor	76-44-8	0.008	0.4	0.4
Heptachlor epoxide	024-57-3	0.004	0.2	0.2
Hexachlorobenzene	118-74-1	0.02	10	10
Hexachlorobutadiene	87–68–3 77–47–4	1 50	1 10	1 50
Hexachlorocyclopentadiene Hexachlorocthane	67–72–1	0.7	10	10
Hydrogen sulfide	7783-06-4	20	NA	20
Indeno(1,2,3–cd)pyrene	193–39–5	NA	20	NA
Iron	7439–89–6	300	100	300
Isophorone	78-59-1	100	10	100
Lead (Total)	7439-92-1	5	10	10
Malathion	121-75-5	200	5	200
Manganese	7439–96–5	50	6	50
Mercury (Total)	7439–97–6	2	0.5	2
Methoxychlor	72-43-5	40	10	40
Methyl bromide (bromomethane)	74–83–9	10	2	10
Methyl chloride (chloromethane) Methyl ethyl ketone	74–87–3 78–93–3	30 300	2	30
3-Methyl-4-chlorophenol	59–50–7	NA	NA 20	300 NA
Methylene chloride	75-09-2	2	20	2
4-Methyl-2-pentanone	108-10-1	400	NA	400
Mirex	2385-85-5	0.01	NA	0.01
Nickel (Soluble salts)	7440-02-0	100	10	100
Nitrate (as N)	14797–55–8	10,000	400	10,000
Nitrate and Nitrite (as N)		10,000	NA	10,000
Nitrite (as N)	14797-65-0	1,000	400 `	1,000
Nitrobenzene	98-95-3	3	10	10
N-Nitrosodimethylamine N-Nitrosodiphenylamine	62-75-9 86-30-6	0.0007	20.	20
N-Nitrosodi-n-propylamine	621–64–7	7 0.005	20 20	20 20
Odor	021-04-7	3b	NA	3b
Oil & Grease and Petroleum Hydrocarbons (PHC)		None Noticeable	NA	None Noticeable
Oxamyl	23135-22-0	200	20	200
PCBs (Polychlorinated biphenyls)	1336-36-3	0.02	0.5	0.5
Pentachlorophenol	. 87–86–5	0.3	1	1
pH		6.5–8.5	NA	6.5–8.5
Phenanthrene	85-01-8	NA .	10	NA
Phenol	108-95-2	4,000	10	4,000
Picloram Purana	1918-02-1	500	1	500
Pyrene Selenium (Total)	129-00-0 7782-49-2	200 50	20 10	200
Silver	7/82 <del>-4</del> 9-2 7440-22-4	NA	2	50 NA
Simazine	122-34-9	1	0.8	1 NA
Sodium	7440-23-5	50,000	400	50,000
Styrene	100-42-5	100	5	100
Sulfate	14808-79-8	250,000	5,000	250,000
Taste		None Objectionable	NA	None Objectionable
TCDD (2,3,7,8-Tetrachlorodibenzo-p-dioxin)	1746-01-6	0.0000002	0.01	0.01
1,1,1,2-Tetrachloroethane	630-20-6	10	NA	10
1,1,2,2-Tetrachloroethanc	79–34–5	2	1	2
Tetrachloroethylene	127–18–4	0.4	1	1
2,3,4,6-Tetrachlorophenol	58-90-2	NA	10	NA

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		Ground Water Quality	Practical Quantitation	Higher of PQLs and Ground Water Quality
Constituent	CASRN	Criteria*	Levels (PQLs)*	Criteria (ug/L)*
Thallium	7440–28–0	0.5	10	10
Toluene	108–88–3	1,000	5	1,000
Total dissolved solids (TDS)		500,000	10,000	500,000
Toxaphene	8001-35-2	0.03	3	3
2,4,5-TP	93-72-1	50	5	- 50
1,2,4–Trichlorobenzene	120-82-1	9	1	9
1,1,1–Trichloroethane	71–55–6	30	1	30
1,1,2–Trichloroethane	79-00-5	3	2	3
Trichloroethylene	79–01–6	1	1	1
2,4,5–Trichlorophenol	95-95-4	700	10	700
2,5,6–Trichlorophenol	88-06-2	3	20	20
Vinylchloride	75-01-4	0.08	5	5
Xylenes (Total)	1330-20-7	40	2	40
m & p-Xylenes	NA	NA	2	NA
o-Xylene	NA	NA	1	NA
Zinc	7440–66–6	5,000	30	5,000
Microbiological criteriam,	Prevailing Safe Drinking			
Radionuclides &	Water Act Regulations			
Turbidity	(N.J.A.C. 7:10-1 et seq.)			

## Explanation of Terms:

\* = Ground Water Quality Criteria and PQLs are expressed as μg/L unless otherwise noted. Table 1 criteria are all maximum values unless clearly indicated as a range for which the minimum value is to the left and the maximum value is to the right.

PQL—Practical Quantitation Level as defined in N.J.A.C. 7:9-6.4

CASRN-Chemical Abstracts System Registration Number

NA = not available for this constituent

a = Asbestos criterion is measured in terms of fibers/L longer than 10 micrometers (f/L>10 um)

μg = micrograms, L = liter, f = fibers, CU = Standard Cobalt Units

b = Odor Threshold Number, mg = milligrams, H = Hardness

(Total) means the concentration of metal in an unfiltered sample following treatment with hot dilute mineral acid (as defined in "Methods for Chemical Analysis of Water & Wastes", EPA-600/4-79-020, March 1979) or other digestion defined by the analytical method. However samples that contain less than 1 nephlometric turbidity unit (NTU) and are properly preserved, may be directly analyzed without digestion.

n = Pursuant to prevailing Safe Drinking Water Act Regulations any positive result for feeal coliform is in violation of the MCL and is therefore an exceedance of the ground water quality criterià.

## TABLE 2 INTERIM GENERIC GROUND WATER QUALITY CRITERIA

500 μg/l total

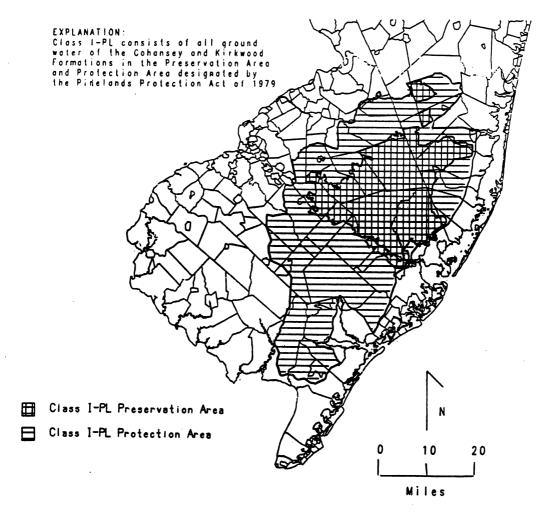
Interim Generic Criteria—Synthetic Organic Chemicals (SOC)\*

Constituent	Water Quality Crite		
SOCs with evidence of carcinogenicity lacking			
specific or interim specific criteria	5 μg/l each		
	25 μg/l total		
SOCs lacking evidence of carcinogenicity lack-			
ing specific or interim specific criteria	100 μg/l each		

\* SOCs are identified as having "evidence of carcinogenicity" or "lacking evidence of carcinogenicity" based upon available scientific evidence. Chemicals are classified as carcinogens or noncarcinogens for the purposes of risk assessment according to the weight of evidence utilized by USEPA in the National Primary Drinking Water Regulations (50 FR 46880–46901 (1985)).

Administrative corrections. See: 25 N.J.R. 1552(a). Petition for Rulemaking. See: 27 N.J.R. 244(b).

Figure 1
New Jersey Ground Water Classification System
Class I-PL—New Jersey Pinelands

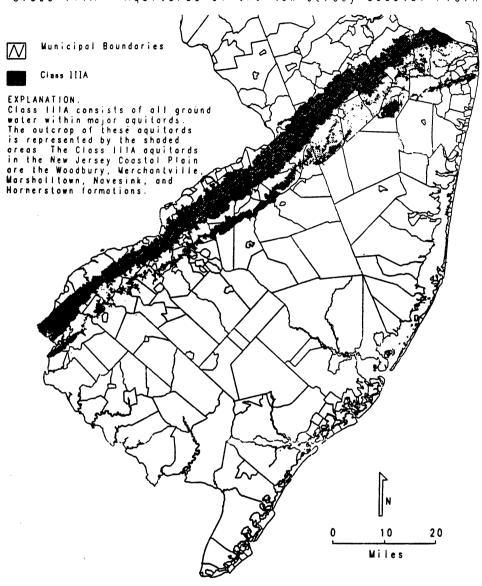


New Jersey Department of Environmental Protection 1990

FIGURE 2

New Jersey Gound Water Classification System

Class IIIA - Aquitards of the New Jersey Coastal Plain



New Jersey Department of Environmental Protection

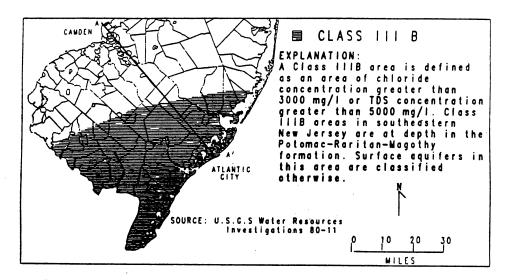
AREA

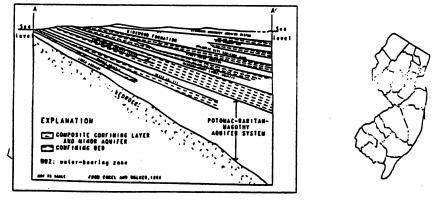
## FIGURE 3

NEW JERSEY GROUND WATER CLASSIFICATION SYSTEM

# CLASS IIIB

CRETACEOUS POTOMAC-RARITAN-MAGOTHY FORMATION

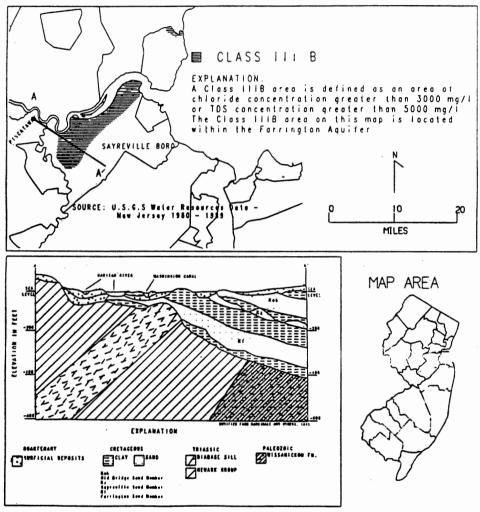




NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION 1990

# FIGURE 4 NEW JERSEY GROUND WATER CLASSIFICATION SYSTEM CLASS IIIB

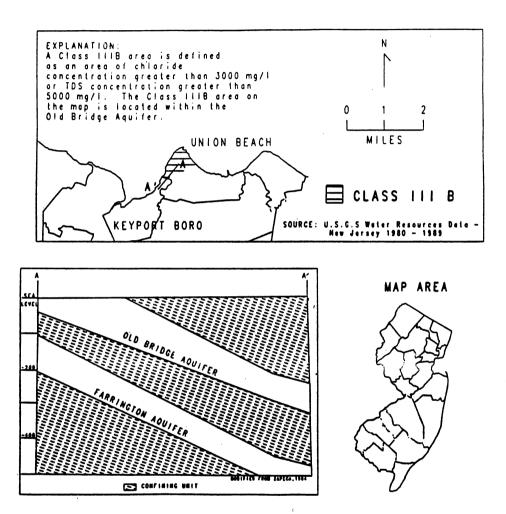
## FARRINGTON AQUIFER



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION 1990

# FIGURE 5 NEW JERSEY GROUND WATER CLASSIFICATION SYSTEM

# CLASS IIIB OLD BRIDGE AQUIFER



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION 1990

## SUBCHAPTER 7. (RESERVED)

Amended by R.1984 d.310, effective December 2, 1974. See: 6 N.J.R. 302(d), 6 N.J.R. 470(c).

## SUBCHAPTER 8. (RESERVED)

## **Historical Note**

Rules concerning Treatment of Wastewaters Discharged into Waters of the State were adopted as the original text of this subchapter pursuant to authority delegated at N.J.S.A. 26:2E-1 et seq. and were filed and became effective prior to September 1, 1969. Amendments were filed pursuant to N.J.S.A. 13:1D-1 et seq.; 58:10A-1 et seq., and 58:11A-1 et seq. as R.1977 d.477, effective December 16, 1977. See: 9 N.J.R. 461(a), 10 N.J.R. 10(c). On March 4, 1981, R.1981 d.80 repealed this subchapter but recodified sections 8.4 through 8.43 as N.J.A.C. 7:9-5.11, with amendments. See: 12 N.J.R. 108(c), 13 N.J.R. 194(h)

# SUBCHAPTER 9. SEALING OF ABANDONED WELLS

## Authority

Unless otherwise expressly noted, all provisions of this subchapter were adopted pursuant to authority of N.J.S.A. 58:4A–4.1 and were filed and became effective October 23, 1973, as R.1973 d.299. See: 5 N.J.R. 185(b), 5 N.J.R. 370(b).

## 7:9–9.1 General provisions

- (a) The filling and sealing of an abandoned well in accordance with the following specifications will be accepted as in compliance with the provisions of N.J.S.A. 58:4A–4.1. A well may not be sealed by a proposed alternate method unless first approved in writing by the Bureau of Water Supply Planning and Management of the Division of Water Resources.
- (b) No person, partnership or corporation may engage in the sealing of a well unless his qualifications and experience have been approved in writing by the Bureau of Water Supply Planning and Management of the division. Depending upon the qualifications of a contractor, the bureau may limit a contractor to the sealing of only certain types of wells (for example rock wells, single cased wells and the like). All sealing operations shall be under the immediate supervision of a person possessing a valid New Jersey well drillers license.
- (c) The use of dynamite in well-sealing operations is expressly prohibited unless authorized in writing by the Bureau of Water Supply Planning and Management of the division.

- (d) The following types of wells may not be sealed until the contractor has submitted a drawing with description of method proposed, which must be approved in writing by the Bureau of Water Supply Planning and Management of the division:
  - 1. Wells drilled in areas where saltwater intrusion is imminent (for example beach communities);
  - 2. Wells which have already been affected by saltwater intrusion or any other contaminants;
  - 3. Gravel-packed wells deriving water from one or more aquifer. The aquifers of the State are those water bearing formations or beds recognized as such by the division. Some formations may contain more than one aquifer. If in doubt, contact the Bureau of Water Supply Planning and Management of the division.
- (e) The contractor shall return to the well no sooner than 24 hours after sealing to allow time for settlement. The remaining space at the top of the well shall then be filled with concrete and the top formed so as to create a concrete slab at least six inches thick above the top of the casing, with a diameter at least two feet greater than the outer casing.
- (f) After well has been sealed, a detailed description of the well and method used for sealing shall be submitted to the Bureau of Water Supply Planning and Management of the division.

As amended, R.1977 d.477, eff. December 16, 1977. See: 9 N.J.R. 461(a), 10 N.J.R. 10(c).

## 7:9-9.2 Rock wells

- (a) The regulations concerning single cased rock wells are:
  - 1. Clear well of pump, pipe and all obstructions.
  - 2. That portion of a well which is uncased in rock shall be filled only with sterilized coarse gravel or crushed stone to within 10 to 20 feet of the bottom of the casing and sealed off with an impermeable plug of sterilized packing materials. The open hole above the plug and the space within the casing shall then be sealed with concrete, cement grout or neat cement which shall be introduced through a pipe discharging at the bottom of the space to be filled in order to prevent dilution of the sealing material.
  - 3. If geologic and hydrologic conditions make it unadvisable to use gravel or crushed stone in the uncased hole, the entire well shall be sealed as described in paragraph 2 of this subsection.
- (b) The regulations concerning double or multiple cased rock wells are:
  - 1. Clear well of pump, pipe and all other obstructions and where possible remove all inner casings.

2. Procedure then shall be as under subsection (a) of this section except that any remaining casing shall be sealed as in a single cased well.

## 7:9-9.3 Sand and gravel wells

- (a) The regulations concerning single-cased sand and gravel wells are:
  - 1. Clear well of pump, pipe and all obstructions:
  - i. Where only one aquifer has been screened the screen shall be filled with sterilized sand or gravel which shall not extend above the top of the screen;
  - ii. Where two or more aquifers have been screened, only the lowermost screen shall be filled with sterilized sand or gravel. The remainder of the well and all upper screens shall be sealed as described below in paragraphs 2 and 3 of this subsection.
  - 2. The casing and screen (where not filled with sand or gravel as described in paragraph 1 of this subsection) shall be filled with a sterilized clay slurry weighing not less than 14 pounds per gallon, cement grout, or neat cement. Concrete may not be used in a screened interval but may be used within the casing. All of the above-mentioned sealing materials shall be introduced through a pipe discharging at the bottom of the space to be filled in order to prevent dilution of the sealing material.
  - 3. If preferred in large diameter wells, casing and upper screens may be filled from the top with dry clay free of lumps larger than ¾ inch diameter, in lifts not higher than five feet, and each lift tamped with the proper drilling tool.
- (b) The rules concerning double or multiple cased wells with no gravel pack, or gravel packed in the first water bearing formation only are:
  - 1. Clear well of pump, pipe and all other obstructions and remove as much inner casing as possible.
  - 2. The screened portion shall be filled with sterilized sand or gravel which shall not extend above the top of the screen.
  - 3. All remaining casing and annular spaces shall be filled as described in N.J.A.C. 7:9–9.3(a)2.
- (c) The rules concerning double or multiple cased wells with gravel packed, screened below the first water bearing formation but tapping only one aquifer are:
  - 1. Clear well of pump, and all other obstructions and remove as much inner casing as possible.
  - 2. If gravel pack within annular space(s) between casing(s) does not extend from the screened formation to the aquifer above and is at least 20 feet below the next aquifer, the contractor may fill the screen with sand or gravel and seal the well and annular space as described in N.J.A.C. 7:9–9.3(a)2.
  - 3. If gravel within annular space(s) extends to within 20 feet of the next water bearing formation, either of the two methods described below are acceptable:

- i. Place packer at the top of the screen, and inject a nontoxic chemical grout under pressure into the screen and surrounding gravel pack below the packer and at least 20 feet vertically into the gravel pack occupying the annular space(s) between casings. If preferred, this section may be filled with sterilized coarse gravel prior to grout injection in order to reduce the amount of grout needed. After the grout has set, the remaining casing and annular space(s) shall be sealed as described in N.J.A.C. 7:9–9.3(a)2.
- ii. If preferred the screen and casing may be filled with sterilized sand to a point between the screen and next overlying aquifer but at least 20 feet below the next aquifer. The inner casing(s) then shall be perforated or ripped at this point, a packer inserted, and nontoxic chemical grout injected under pressure below the packer into the surrounding gravel pack so that the annular space(s) between casings is sealed for a vertical distance at least 20 feet between the screen and the next aquifer. After the grout has set the remaining casing and annular space(s) shall be sealed as described in N.J.A.C. 7:9–9.3(a)2.

## 7:9-9.4 Test wells

- (a) An unused test well shall be considered an abandoned well and shall be sealed as described in the previous sections unless it is to be used for observation purposes in which case permission must be granted in writing by the Bureau of Water Control of the Division.
- (b) If the casing of a test well is to be removed, the open hole shall be filled with a sterilized clay slurry weighing not less than 14 pounds per gallon, cement grout, neat cement or concrete, which shall be introduced from the bottom of the spaces to be filled. In unconsolidated formations, the sealing material shall be introduced into the bottom of the hole while the casing is pulled so as to prevent the uncased hole from caving. The producing zone, or uncased hole in a rock shall be filled with sterilized gravel or crushed stone. However, in rock wells where zones of poor-quality water were encountered or where geologic and hydrologic conditions make it unadvisable to use gravel or crushed stone, the entire hole shall be sealed.

## SUBCHAPTER 10. (RESERVED)

## Historical Note

This subchapter formerly contained rules on the "Installation of Sewerage Facilities in Critical Areas", which were adopted pursuant to authority delegated at N.J.S.A. 58:11–43 et seq. and filed on November 16, 1971 as R.1971 d.208 to become effective on January 15, 1972. See: 3 N.J.R. 78(a), 3 N.J.R. 255(b). Amendments were filed and became effective on January 23, 1978 as R.1978 d.19. See: 9 N.J.R. 311(a), 10 N.J.R. 60(a). Subsequent amendments became effective on December 16, 1977 as R.1977 d.477; July 19, 1979 as R.1979 d.282; and September 7, 1982 as R.1982 d.298. See: 9 N.J.R. 46(a), 10 N.J.R. 10(c); 10 N.J.R. 476(a), 11 N.J.R. 374(c); and 14 N.J.R. 504(a), 14 N.J.R. 979(a). On October 3, 1983 R.1982 d.423 repealed the text of the subchapter as duplicative of current review procedures conducted by local boards of health and the Pinelands Commission. See: 15 N.J.R. 1155(a), and 15 N.J.R. 1654(b).

## Case Notes

Regulations vis-a-vis Municipal Planning Act. Ocean Acres, Inc. v. State, 168 N.J. Super. 597, 403 A.2d 967 (App.Div.1979), certif. den. 81 N.J. 352, 407 A.2d 1226 (1979).

Critical area designation, valid exercise of police power. N.J. Builders Ass'n v. D.E.P., 169 N.J. Super. 76 (App.Div.1979), certif. den. 81 N.J. 402 (1979).

## SUBCHAPTER 11. (RESERVED)

## **Historical Note**

Rules concerning Allocation of Waste Loads or Point-Source Dischargers were adopted as the original text of this subchapter pursuant to authority delegated at N.J.S.A. 13:1D–1 et seq. and were filed and became effective on June 18, 1974 as R.1974 d.151. See: 6 N.J.R. 132(c), 6 N.J.R. 263(b). Amendments were filed as R.1977 d.477, effective December 16, 1977. See: 9 N.J.R. 461(a), 10 N.J.R. 10(c). On March 4, 1981, R.1981 d.80 repealed this subchapter but recodified portions of the text at N.J.A.C. 7:9–5. See: 12 N.J.R. 108(c), 13 N.J.R. 194(b).

## SUBCHAPTER 12. (RESERVED)

## SUBCHAPTER 13. (RESERVED)

## **Historical Note**

This subchapter Sewer Extension Ban was originally adopted pursuant to authority of N.J.S.A. 58:12–2 and became effective October 16, 1975 as R.1975 d.302. See: 7 N.J.R. 147(a), 7 N.J.R. 499(e).

1979 Revisions: Amendments were adopted pursuant to authority of N.J.S.A. 13:1D-1 et seq. and N.J.S.A. 58:10A-1 et seq. and became effective March 29, 1979 as R.1979 d.129. See: 11 N.J.R. 9(b), 11 N.J.R. 230(a).

1981 Revisions: Amendments became effective July 9, 1981 as R.1981 d.224. See: 12 N.J.R. 639(b), 13 N.J.R. 402(a).

1984 Revisions: This subchapter was readopted effective July 23, 1984 pursuant to authority of N.J.S.A. 58:10A-1 et seq. with amendments effective August 6, 1984 as R.1984 d.336. See: 16 N.J.R. 660(a), 16 N.J.R. 2096(a).

1987 Revisions: This subchapter was repealed effective November 2, 1987 as R.1987 d.445. See: 18 N.J.R. 2163(a), 19 N.J.R. 2000(b).

## SUBCHAPTER 14. (RESERVED)

## Historical Note

Rules concerning Ground Water Quality Standards were adopted as the original text of this subchapter pursuant to the authority delegated at N.J.S.A. 58:10A-1 et seq. and were filed and became effective on January 23, 1978 as R.1978 d.28. See: 9 N.J.R. 68(b), 10 N.J.R. 61(a). Amendments were filed as R.1979 d.282, effective July 19, 1979. See: 10 N.J.R. 476(a), 11 N.J.R. 374(c). On March 4, 1981, R.1981 d.80

repealed this subchapter but recodified portions of the text at 7:9–6. See: 12 N.J.R. 108(c), 13 N.J.R. 194(b).

## SUBCHAPTER 15. GRANTS FOR RESTORING PUBLICLY OWNED FRESHWATER LAKES

## Authority

N.J.S.A. 58:10A-1 et seg. and 58:11A-1 et seg.

## Source and Effective Date

R.1985 d.717, effective January 21, 1986. See: 17 N.J.R. 2182(a), 18 N.J.R. 163(b).

## Historical Note

All provisions of this subchapter became effective August 22, 1980 as R.1980 d.374. See: 12 N.J.R. 310(a), 12 N.J.R. 575(c). This subchapter expired August 22, 1985 and new rules were adopted pursuant to Executive Order No. 66(1978) effective January 16, 1986 as R.1985 d.717. See: 17 N.J.R. 2182(a), 18 N.J.R. 163(b). See chapter and section levels for further amendments.

## 7:9-15.1 Scope of rules

Unless otherwise provided by rule or statute, the following shall constitute the rules of the Department of Environmental Protection concerning policies and procedures for grants to assist local government in carrying out the restoration of publicly owned freshwater lakes pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. and the Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq.

## 7:9-15.2 Construction

This subchapter shall be liberally construed to permit the department and its various divisions to discharge their statutory functions.

## 7:9-15.3 Purpose

- (a) This subchapter is promulgated for the following purposes:
  - 1. To set forth grant eligibility; and
  - 2. To establish policies and procedures for distribution of funds to local governments for Phase I Diagnosticfeasibility studies and for Phase II Implementation activities.

## 7:9-15.4 Definitions

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

"Applicant" means the governmental agency which has jurisdiction over or controls access to the freshwater lake.

"Department" means the Department of Environmental Protection.

"Diagnostic-feasibility study" means a two part study to determine a lake's current condition and to develop possible methods for lake restoration and protection.

"EPA" means the United States Environmental Protection Agency.

"Freshwater lake" means any inland pond, reservoir, impoundment, or other similar body of water that has recreational value, that exhibits no oceanic and tidal influences, and that has a total dissolved solids concentration of less than one percent.

## 7:9-15.5 Grant eligibility

- (a) To be eligible for funding, an applicant shall meet the following criteria:
  - 1. The freshwater lake shall offer public access through publicly owned contiguous land so that any member of the public may have the same or equivalent opportunity to enjoy privileges and benefits of the public as any other member of the public or as any resident around the lake;
  - 2. If user fees are charged for public use and access, the fees shall be used solely for maintenance of the access and recreational facilities or for improving the lake;
  - 3. The freshwater lake shall not be used only as a source of drinking water;
  - 4. The proposed project shall be consistent with the applicable adopted Water Quality Management Plan;
  - 5. Chemical application programs for aquatic weed control are not eligible for funding; and
  - 6. A lake that can be restored by controlling the discharge of pollutants from a point source through a municipal or industrial permit under section 402 of the Federal Clean Water Act, 33 U.S.C. 1342, or through the planning and construction of wastewater treatment facilities under section 201 of the Federal Clean Water Act, 33 U.S.C. 1281, shall not be eligible for funding.

## 7:9-15.6 Types of grant assistance

- (a) The Department will administer the following types of grants pursuant to this subchapter:
  - 1. Subject to the availability of funds, approved Phase I Diagnostic-Feasibility Studies will be funded through the Department pursuant to the following formulas:
    - i. If an EPA grant is awarded for the project, a maximum of 70 percent of allowable costs shall be funded by EPA; a maximum of fifteen percent of allowable costs shall be funded by the Department; and the remainder of the costs shall be funded by the applicant.

- ii. If no EPA grant is awarded for the project, a maximum of 50 percent of allowable costs shall be funded by the Department and the remainder of the costs shall be funded by the applicant.
- 2. Subject to the availability of funds, approved Phase II Implementation activities will be funded through the Department pursuant to the following formulas:
  - i. If an EPA grant is awarded for the project, a maximum of 50 percent of allowable costs shall be funded by EPA; a maximum of 40 percent of allowable costs shall be funded by the Department; and the remainder shall be funded by the applicant.
  - ii. If no EPA grant is awarded for the project, a maximum of 75 percent of allowable costs shall be funded by the Department and the remainder of the costs shall be funded by the applicant.
- 3. In the event that legislation is enacted appropriating funds for a specific lake restoration project which indicates that a different funding formula shall be used, that funding formula designated by the legislature shall apply.

Amended by R.1987 d.447, effective November 2, 1987. See: 19 N.J.R. 909(a), 19 N.J.R. 2000(a).

(a)2ii maximum raised from 50 to 75 percent.

## 7:9-15.7 (Reserved)

## 7:9-15.8 Phase I grant assistance criteria

- (a) Projects for Phase I grant assistance will be evaluated for funding based upon the following criteria:
  - 1. Eligibility for federal funding;
  - i. Federal funding, when available, will provide up to 70 percent of the allowable costs of the project.
  - ii. The Department shall apply for federal funding for the project when these funds are available through EPA, under the Clean Lakes Program, established pursuant to section 314 of the Clean Water Act, and the regulations promulgated thereunder at 40 CFR 35.1600 et seq.;
  - 2. Availability of local funding;
  - 3. Accessibility of the lake to the public;
  - 4. Population size and demography with a 15 mile radius of the lake;
  - 5. The amount and kind of public transportation available for transport of the public to and from the public access points;
  - 6. Consideration of whether other relatively clean publicly owned freshwater lakes within a 50 kilometer radius already adequately serve the population;
  - 7. The historical uses of the lake and the need for and practicality of restoring the lake for those uses;

- 8. The degree to which the project considers the "open space" policies contained in sections 201(f), 201(g) and 208(b)(2)(A) of the Clean Water Act;
- 9. The reasonableness of the proposed costs relative to the proposed work, the likelihood that the project will succeed, and the potential public benefits;
- 10. The means for controlling anticipated adverse environmental impacts which could result from the proposed restoration of the lake:
- 11. Water quality in the lake, as indicated by existing data;
- 12. The technical feasibility of the proposed project approach and where appropriate, the estimately improvement in the lake water quality; and
- 13. The anticipated positive changes that the project would produce in the overall lake ecosystem, including the watershed, such as the net reduction in sediment, nutrient, and other pollutant loadings.

## 7:9-15.9 Phase II grant assistance

- (a) Projects for Phase II grant assistance will be evaluated for funding based upon the following criteria:
  - 1. Eligibility for federal funding:
  - i. Federal funding, when available, will provide up to 50 percent of the cost of the project.
  - ii. The Department shall apply for federal funding for the project as set forth in N.J.A.C. 7:9-15.8(a)1ii.
  - 2. The criteria contained in N.J.A.C. 7:9–15.8(a)1 through 13 will be considered; and
  - 3. When a Phase I grant has been awarded, the Phase II project shall conform to the final plan selected under Phase I.

## 7:9-15.10 Project period

- (a) The project period for Phase I projects shall not exceed three years.
- (b) The project period for Phase II projects shall not exceed four years.

## 7:9-15.11 Public participation

(a) The applicant for a Phase I grant shall provide for, encourage, and assist public participation in developing a proposed lake restoration project. The applicant shall solicit public comment on the plan of study, prepare a summary of responses to the public comment, and submit the summary as part of the Phase I application.

- (b) Phase I grant recipients shall solicit public comment in developing, evaluating, and selecting alternatives, in assessing potential adverse environmental impacts, and in identifying measures to mitigate any adverse impacts that were identified.
  - 1. The grantee shall provide information relevant to these decisions in fact sheet or summary form and distribute such information to the public at least 30 days before selecting a proposed method of lake restoration.
  - 2. The grantee shall hold a formal or informal meeting with the public after all pertinent information is distributed.
  - 3. A formal public hearing shall be held if the grantee selects a lake restoration method which involves major construction, dredging, or significant modifications to the environment, or if the department determines that a hearing would be beneficial.
- (c) Phase II grant applicants shall hold a formal public hearing if one has not been held subsequent to completion of Phase I and prepare a summary of the responses to all public comments. The applicant shall submit the summary along with copies of any written comments to the Department with the Phase II application.

## 7:9-15.12 Program administration

- (a) The program shall be administered by the Division of Water Resources.
- (b) Within 90 days of receiving a complete application, the Department will either:
  - 1. Conditionally approve the project for funding in an amount determined to be appropriate for the project, and if federal funding is available, submit the application to EPA for final approval;
  - 2. Return the application to the applicant due to lack of funding; or
  - 3. Disapprove the application and state the reasons for disapproval.
- (c) The Department will establish a priority list for all applications received before September 1 of each fiscal year.
- (d) Requests for further information concerning this program as well as program proposals should be directed to:

New Jersey Department of Environmental Protection

Division of Water Resources

CN 029

Trenton, New Jersey 08625

Attn: Lakes Management Coordinator

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