

CHAPTER 9C

GROUND WATER QUALITY STANDARDS

Authority

N.J.S.A. 13:1D-1 et seq., 58:10A-1 et seq., and 58:11A-1 et seq.

Source and Effective Date

R.2005 d.368, effective October 4, 2005.
See: 36 N.J.R. 4374(b), 5057(a), 5636(a), and 37 N.J.R. 4226(b).

Chapter Expiration Date

Chapter 9C, Ground Water Quality Standards, expires on October 4, 2010.

Chapter Historical Note

Chapter 9C, Ground Water Quality Standards, was recodified from N.J.A.C. 7:9 Subchapter 6 and readopted by R.2005 d.368, effective October 4, 2005. See: Source and Effective Date. See, also, section annotations.

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APPENDIX

SUBCHAPTER 1. GROUND WATER QUALITY STANDARDS

7:9C-1.1 Scope of chapter

(a) Unless otherwise provided by statute, this chapter constitutes the rules of the Department of Environmental Protection 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 chapter provides 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 remediation standards; and other re-

quirements and regulatory actions applicable to discharges that cause or may cause pollutants to enter the ground waters of the State, including non-point 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 Brownfield and Contaminated Site Remediation Act (N.J.S.A. 58:10B-1 et seq.), the Site Remediation Reform Act (N.J.S.A. 58:10C-1 et seq.), the Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.), the Industrial Site Recovery Act (N.J.S.A. 13:1K-6 et seq.), the Underground 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 chapter constitutes the Department's primary basis for setting numerical criteria for limits on discharges to ground water and standards for ground water remediation.

Recodified from N.J.A.C. 7:9-6.1 by R.2005 d.368, effective November 7, 2005.

See: 36 N.J.R. 4374(b), 37 N.J.R. 4226(b).

Rewrote the section.

Special amendment, R.2009 d.361, effective November 4, 2009 (to expire May 4, 2011).

See: 41 N.J.R. 4467(a).

In (b), inserted "the Site Remediation Reform Act (N.J.S.A. 58:10C-1 et seq.)."

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).

7:9C-1.2 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 discharge 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. 7:9B).

(c) When existing ground water quality does not meet the constituent standards determined pursuant to N.J.A.C. 7:9C-1.7, 1.8 and 1.9, 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 chapter.

(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.

Recodified from N.J.A.C. 7:9-6.2 by R.2005 d.368, effective November 7, 2005.

See: 36 N.J.R. 4374(b), 37 N.J.R. 4226(b).

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).

7:9C-1.3 Construction

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

Recodified from N.J.A.C. 7:9-6.3 by R.2005 d.368, effective November 7, 2005.

See: 36 N.J.R. 4374(b), 37 N.J.R. 4226(b).

7:9C-1.4 Definitions

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

“ACL” means alternative concentration limit.

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

“Alternative concentration limit” or “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. 7:9C-1.7, 1.8 and 1.9 due to a Departmental decision pursuant to NJPDES regulations (N.J.A.C. 7:14A-10.8(b)). In order to approve an ACL, the Department must find that the relevant constituent standard(s) cannot be achieved through technologically practicable means.

“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. 7:9C-1.1(b) or in any other regulations that specifically cite this chapter.

“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.

7:9C-1.5(f)1 or may be established through reclassification under N.J.A.C. 7:9C-1.10.

“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-10.11(g).

“Carcinogen” means a constituent capable of inducing a cancer response, including Group A (Human Carcinogen), Group B (Probable Human Carcinogen) or Group C (Possible Human Carcinogen) categorized in accordance with the USEPA Guidelines for Carcinogen Risk Assessment, 51 Fed. Reg. 33932, 1986, incorporated herein by reference, as amended or supplemented.

“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. 7:9C-1.5.

“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. 7:9C-1.6.

“Conservation restriction” means the restricting of development on property as that term is defined under the New Jersey Conservation Restriction and Historic Preservation Restriction Act, N.J.S.A. 13:8B-1 et seq.

“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. 7:9C-1.7, 1.8 and 1.9(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. 7:9C-1.1.

“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.

“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. 7:9C-1.5. Designated uses may include

<u>Constituent</u>	<u>CASRN</u>	<u>Ground Water Quality Criterion*</u>	<u>Practical Quantitation Level (PQL)*</u>	<u>Higher of PQL and Ground Water Quality Criterion (µg/L)*</u>
Acrylonitrile	107-13-1	0.06	2	2
Adipates (Di(2-ethylhexyl)adipate) (DEHA)	103-23-1	30	3	30
Alachlor	15972-60-8	0.4	0.1	0.4
Aldicarb sulfone	1646-88-4	7	0.3	7
Aldrin	309-00-2	0.002	0.04	0.04
Aluminum	7429-90-5	200	30	200
Ammonia (Total)	7664-41-7	3,000	200	3,000
Aniline	62-53-3	6	2	6
Anthracene	120-12-7	2,000	10	2,000
Antimony (Total)	7440-36-0	6	3	6
Arsenic (Total)	7440-38-2	0.02	3	3
Asbestos	1332-21-4	7X10 ⁶ f/L>10um ^a	10 ⁶ f/L>10um ^a	7X10 ⁶ f/L>10um ^a
Atrazine	1912-24-9	3	0.1	3
Barium	7440-39-3	6,000	200	6,000
Benz(a)anthracene	56-55-3	0.05	0.1	0.1
Benzene	71-43-2	0.2	1	1
Benzidine	92-87-5	0.0002	20	20
Benzo(a)pyrene (BaP)	50-32-8	0.005	0.1	0.1
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	0.05	0.2	0.2
Benzo(k)fluoranthene	207-08-9	0.5	0.3	0.5
Benzoic Acid	65-85-0	30,000	50	30,000
Benzyl Alcohol	100-51-6	2,000	20	2,000
Beryllium	7440-41-7	1	1	1
alpha-BHC- (alpha-HCH)	319-84-6	0.006	0.02	0.02
beta-BHC (beta-HCH)	319-85-7	0.02	0.04	0.04
gamma-BHC (gamma-HCH/Lindane)	58-89-9	0.03	0.02	0.03
1,1-Biphenyl	92-52-4	400	10	400
Bis(2-chloroethyl) ether	111-44-4	0.03	7	7
Bis(2-chloroisopropyl) ether	108-60-1	300	10	300
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	2	3	3
Bromodichloromethane (Dichlorobromomethane)	75-27-4	0.6	1	1
Bromoform	75-25-2	4	0.8	4
n-Butanol (n-Butyl alcohol)	71-36-3	700	20	700
tertiary-Butyl alcohol (TBA)	75-65-0	100	2	100
Butylbenzyl phthalate	85-68-7	100	1	100
Cadmium	7440-43-9	4	0.5	4
Camphor	76-22-2	1,000	0.5	1,000
Carbofuran	1563-66-2	40	0.5	40
Carbon Disulfide	75-15-0	700	1	700
Carbon Tetrachloride	56-23-5	0.4	1	1
Chlordane	57-74-9	0.01	0.5	0.5
Chloride	16887-00-6	250,000	2,000	250,000
4-Chloroaniline (p-Chloroaniline)	106-47-8	30	10	30
Chlorobenzene (Monochlorobenzene)	108-90-7	50	1	50
Chloroform	67-66-3	70	1	70
2-Chloronaphthalene	91-58-7	600	10	600
2-Chlorophenol	95-57-8	40	20	40
Chlorpyrifos	2921-88-2	20	0.1	20
Chromium (Total)	7440-47-3	70	1	70
Chrysene	218-01-9	5	0.2	5
Color		10 CU	5 CU	10 CU

<u>Constituent</u>	<u>CASRN</u>	<u>Ground Water Quality Criterion*</u>	<u>Practical Quantitation Level (PQL)*</u>	<u>Higher of PQL and Ground Water Quality Criterion (µg/L)*</u>
Copper	7440-50-8	1,300	4	1,300
Cumene (Isopropyl benzene)	98-82-8	700	1	700
Cyanide (free cyanide)	57-12-5	100	6	100
2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	70	2	70
Dalapon (2,2-Dichloropropionic acid)	75-99-0	200	0.1	200
4,4'-DDD (p,p'-TDE)	72-54-8	0.1	0.02	0.1
4,4'-DDE	72-55-9	0.1	0.01	0.1
4,4'-DDT	50-29-3	0.1	0.1	0.1
Demeton	8065-48-3	0.3	1	1
Dibenz(a,h)anthracene	53-70-3	0.005	0.3	0.3
Dibromochloromethane (Chlorodi- bromomethane)	124-48-1	0.4	1	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.02	0.02	0.02
Di-n-butyl phthalate	84-74-2	700	1	700
1,2-Dichlorobenzene (ortho)	95-50-1	600	5	600
1,3-Dichlorobenzene (meta)	541-73-1	600	5	600
1,4-Dichlorobenzene (para)	106-46-7	75	5	75
3,3-Dichlorobenzidine	91-94-1	0.08	30	30
Dichlorodifluoromethane (Freon 12)	75-71-8	1,000	2	1,000
1,1-Dichloroethane (1,1-DCA)	75-34-3	50	1	50
1,2-Dichloroethane	107-06-2	0.3	2	2
1,1-Dichloroethylene (1,1-DCE)	75-35-4	1	1	1
cis-1,2-Dichloroethylene	156-59-2	70	1	70
trans-1,2-Dichloroethylene	156-60-5	100	1	100
2,4-Dichlorophenol (DCP)	120-83-2	20	10	20
1,2-Dichloropropane	78-87-5	0.5	1	1
1,3-Dichloropropene (cis and trans)	542-75-6	0.4	1	1
Dieldrin	60-57-1	0.002	0.03	0.03
Diethyl phthalate	84-66-2	6,000	1	6,000
Diisodecyl phthalate (DIDP)	26761-40-0	100	3	100
Diisopropyl ether (DIPE)	108-20-3	20,000	5	20,000
2,4-Dimethyl phenol	105-67-9	100	20	100
2,4-Dinitrophenol	51-28-5	10	40	40
2,4-Dinitrotoluene/2,6-Dinitrotoluene	25321-14-6	0.05	10	10
Mix				
Di-n-octyl phthalate	117-84-0	100	10	100
Dinoseb	88-85-7	7	2	7
Diphenylamine	122-39-4	200	20	200
1,2-Diphenylhydrazine	122-66-7	0.04	20	20
Diquat	85-00-7	20	2	20
Endosulfan (alpha and beta)	115-29-7	40	0.1	40
alpha-Endosulfan (Endosulfan I)	959-98-8	40	0.02	40
beta-Endosulfan (Endosulfan II)	33213-65-9	40	0.04	40
Endosulfan Sulfate	1031-07-8	40	0.02	40
Endothall	145-73-3	100	60	100
Endrin	72-20-8	2	0.03	2
Epichlorohydrin	106-89-8	4	5	5
Ethion	563-12-2	4	0.5	4
Ethyl acetate	141-78-6	6,000	10	6,000
Ethylbenzene	100-41-4	700	2	700
Ethylene dibromide (1,2-Dibromo- methane)	106-93-4	0.0004	0.03	0.03
Ethylene glycol	107-21-1	300	200	300
Ethylene glycol monomethyl ether	109-86-4	7	20,000	20,000

<u>Constituent</u>	<u>CASRN</u>	<u>Ground Water Quality Criterion*</u>	<u>Practical Quantitation Level (PQL)*</u>	<u>Higher of PQL and Ground Water Quality Criterion (µg/L)*</u>
Ethyl ether	60-29-7	1,000	50	1,000
Fluoranthene	206-44-0	300	10	300
Fluorene	86-73-7	300	1	300
Fluoride	7782-41-4	2,000	500	2,000
Foaming agents (ABS/LAS)		500	0.5	500
Formaldehyde	50-00-0	100	30	100
Glyphosate	1071-83-6	700	30	700
Hardness (as CaCO ₃)		250,000	10,000	250,000
Heptachlor	76-44-8	0.008	0.05	0.05
Heptachlor epoxide	1024-57-3	0.004	0.2	0.2
Hexachlorobenzene	118-74-1	0.02	0.02	0.02
Hexachlorobutadiene	87-68-3	0.4	1	1
Hexachlorocyclopentadiene	77-47-4	40	0.5	40
Hexachloroethane	67-72-1	2	7	7
Hexane (n-Hexane)	110-54-3	30	5	30
Indeno (1,2,3-cd)pyrene	193-39-5	0.05	0.2	0.2
Iron	7439-89-6	300	20	300
Isophorone	78-59-1	40	10	40
Lead (Total)	7439-92-1	5	5	5
Malathion	121-75-5	100	0.6	100
Manganese	7439-96-5	50	0.4	50
Mercury (Total)	7439-97-6	2	0.05	2
Methanol	67-56-1	4,000	70	4,000
Methoxychlor	2-43-5	40	0.1	40
Methyl acetate	79-20-9	7,000	0.5	7,000
Methyl bromide (Bromomethane)	74-83-9	10	1	10
Methylene chloride	75-09-2	3	1	3
Methyl ethyl ketone (2-Butanone) (MEK)	78-93-3	300	2	300
Methyl Salicylate	119-36-8	4,000	50	4,000
Methyl tertiary butyl ether (MTBE)	1634-04-4	70	1	70
Mirex	2385-85-5	0.1	0.08	0.1
Molybdenum	7439-98-7	40	2	40
Naphthalene	91-20-3	300	2	300
Nickel (Soluble salts)	7440-02-0	100	4	100
Nitrate	14797-55-8	10,000	100	10,000
Nitrite	14797-65-0	1,000	10	1,000
Nitrate and Nitrite		10,000	10	10,000
Nitrobenzene	98-95-3	4	6	6
N-Nitrosodimethylamine	62-75-9	0.0007	0.8	0.8
N-Nitrosodiphenylamine	86-30-6	7	10	10
N-Nitrosodi-n-propylamine (Di-n-propylnitrosamine)	621-64-7	0.005	10	10
Odor		3b	NA	3b
Oil & Grease & Petroleum Hydrocarbons		None Noticeable	NA	None Noticeable
Oxamyl	23135-22-0	200	1	200
Parathion	56-38-2	4	0.08	4
PBBs (Polybrominated biphenyls)	67774-32-7	0.004	0.001	0.004
PCBs (Polychlorinated biphenyls)	1336-36-3	0.02	0.5	0.5
Pentachlorophenol	87-86-5	0.3	0.1	0.3
pH		6.5-8.5	NA	6.5-8.5
Phenol	08-95-2	2,000	10	2,000
Picloram	1918-02-1	500	1	500

<u>Constituent</u>	<u>CASRN</u>	<u>Ground Water Quality Criterion*</u>	<u>Practical Quantitation Level (PQL)*</u>	<u>Higher of PQL and Ground Water Quality Criterion (µg/L)*</u>
Pyrene	129-00-0	200	0.1	200
Salicylic acid	69-72-7	80	30	80
Selenium (Total)	7782-49-2	40	4	40
Silver	7440-22-4	40	1	40
Simazine	122-34-9	0.3	0.8	0.8
Sodium	7440-23-5	50,000	400	50,000
Styrene	100-42-5	100	2	100
Sulfate	14808-79-8	250,000	5,000	250,000
Taste		None	NA	None
		Objectionable		Objectionable
TDS (Total Dissolved Solids)		500,000	10,000	500,000
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	0.000002	0.00001	0.00001
1,1,1,2-Tetrachloroethane	630-20-6	1	1	1
1,1,2,2-Tetrachloroethane	79-34-5	1	1	1
Tetrachloroethylene (PCE)	127-18-4	0.4	1	1
2,3,4,6-Tetrachlorophenol	58-90-2	200	3	200
Tetrahydrofuran	109-99-9	10	10	10
Thallium	7440-28-0	0.5	2	2
Toluene	108-88-3	600	1	600
Toxaphene	8001-35-2	0.03	2	2
2,4,5-TP (2-(2,4,5-Trichlorophenoxy)propionic acid)	93-72-1	60	0.6	60
1,2,4-Trichlorobenzene	120-82-1	9	1	9
1,1,1-Trichloroethane (TCA)	71-55-6	30	1	30
1,1,2-Trichloroethane	79-00-5	3	2	3
Trichloroethene (TCE)	79-01-6	1	1	1
Trichlorofluoromethane (Freon 11)	75-69-4	2,000	1	2,000
2,4,5-Trichlorophenol	95-95-4	700	10	700
2,4,6-Trichlorophenol	88-06-2	1	20	20
1,2,3-Trichloropropane	96-18-4	0.005	0.03	0.03
Vanadium Pentoxide	1314-62-1	60	1	60
Vinyl Acetate	108-05-4	7,000	5	7,000
Vinyl Chloride	75-01-4	0.08	1	1
Xylenes (Total)	1330-20-7	1,000	2	1,000
Zinc	7440-66-6	2,000	10	2,000
Microbiological Criteria ^m , Radionuclides & Turbidity		Standards promulgated in the Safe Drinking Water Act Regulations (N.J.A.C. 7:10-1 et seq.)		

Explanation of Terms:

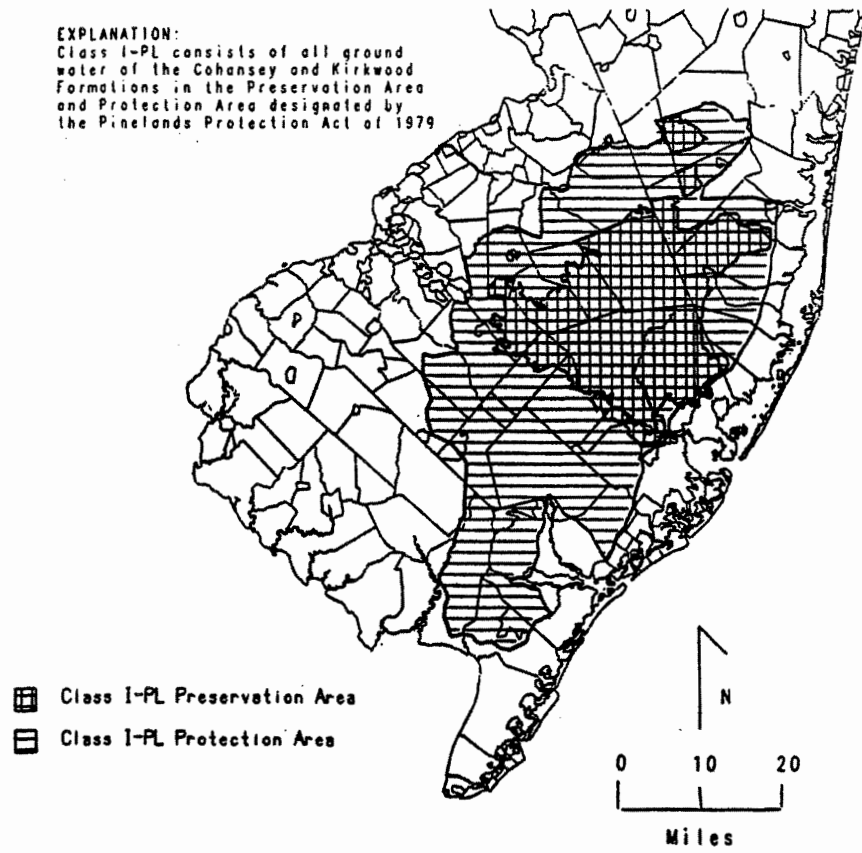
- * = Ground water quality criteria and PQLs are expressed as micrograms per liter (µg/L) unless otherwise noted. Table 1 criteria are all maximum values unless clearly indicated as a range for which the minimum value is to the left and the maximum value is to the right.
- PQL = Practical quantitation level as defined in N.J.A.C. 7:9C-1.4
- 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 µm)
- 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," USEPA-600/4-79-020, March 1979) or other digestion defined by the analytical method. However samples that contain less than 1 nephelometric turbidity unit (NTU) and are properly preserved, may be directly analyzed without digestion.

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

Table 2		SOCs defined as non-carcinogens in N.J.A.C. 7:9C-1.4 lacking specific or interim specific criteria	100 µg/l each 500 µg/l total
INTERIM GENERIC GROUND WATER QUALITY CRITERIA			
Interim Generic Criteria—Synthetic Organic Chemicals (SOCs)		Administrative corrections. See: 25 N.J.R. 1552(a). Petition for Rulemaking. See: 27 N.J.R. 244(b). Recodified from N.J.A.C. 7:9-6 by R.2005 d.368, effective November 7, 2005. See: 36 N.J.R. 4374(b), 37 N.J.R. 4226(b). Rewrote Table 1 and Table 2. Administrative change. See: 39 N.J.R. 3538(a).	
Constituent	Criteria		
SOCs defined as carcinogens in N.J.A.C. 7:9C-1.4 lacking specific or interim specific criteria	5 µg/l each 25 µg/l total		

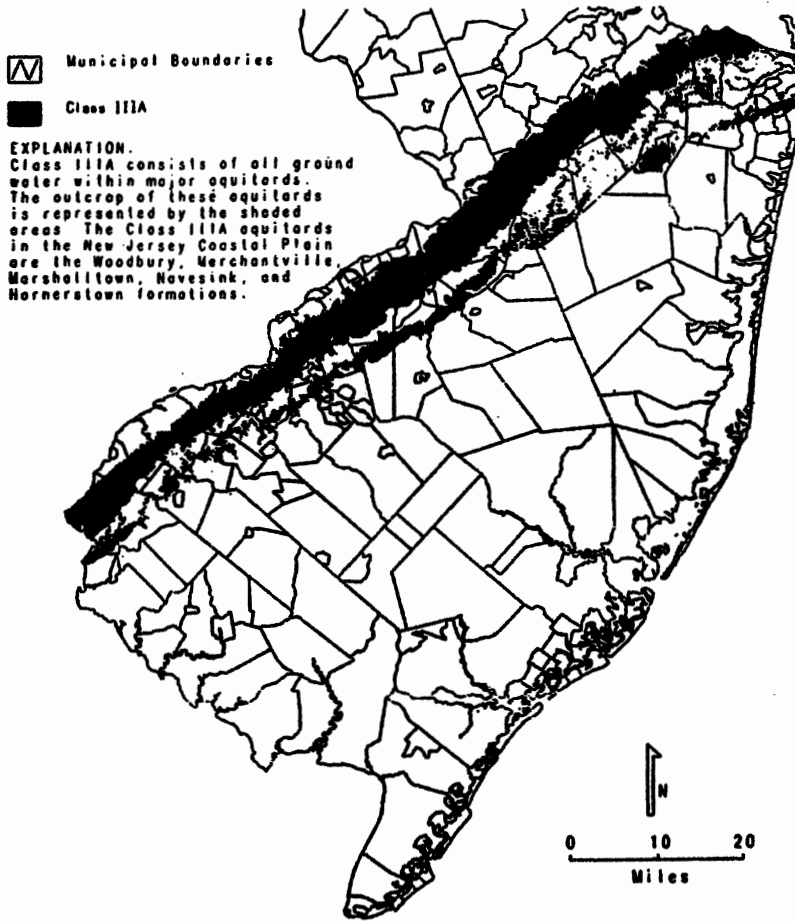
Figure 1
New Jersey Ground Water Classification System
Class I-PL—New Jersey Pinelands



New Jersey Department of Environmental Protection
1990

FIGURE 2

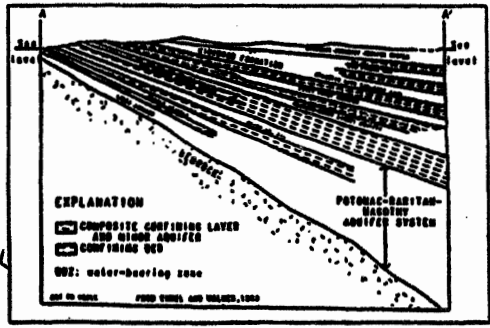
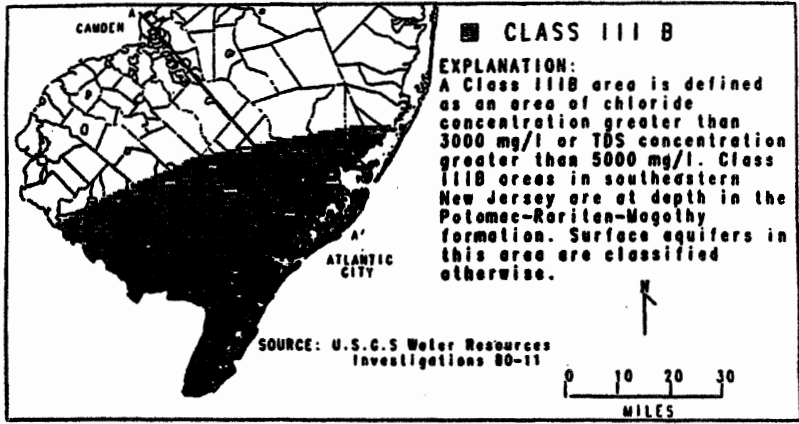
New Jersey Gound Water Classification System
Class IIIA - Aquitards of the New Jersey Coastal Plain



New Jersey Department of Environmental Protection
1999

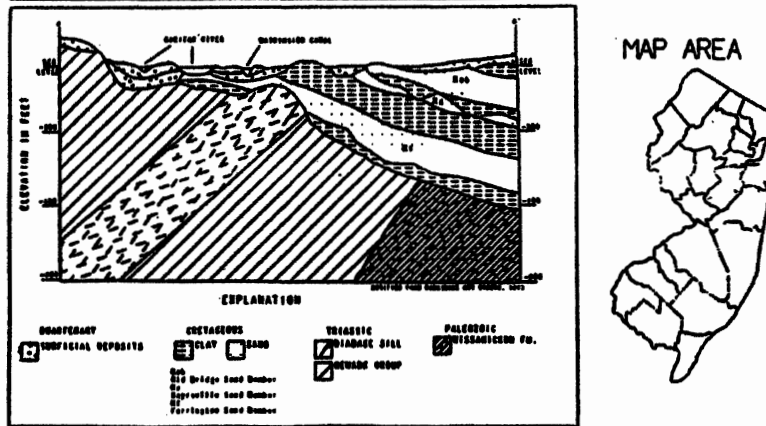
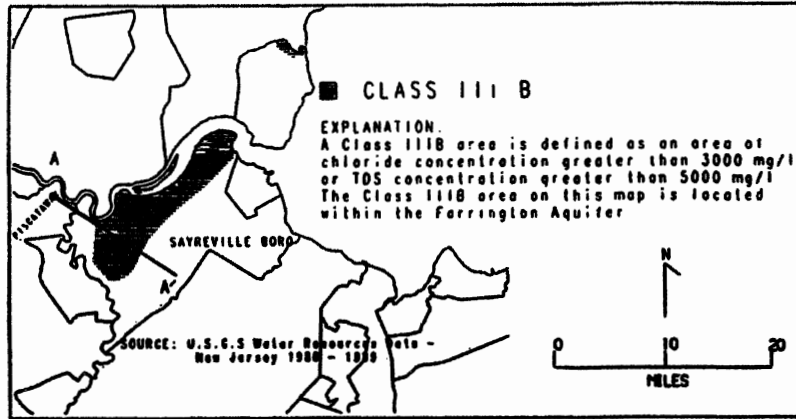
FIGURE 3
 NEW JERSEY GROUND WATER CLASSIFICATION SYSTEM
CLASS III B

CRETACEOUS POTOMAC-RARITAN-MAGOTHY FORMATION



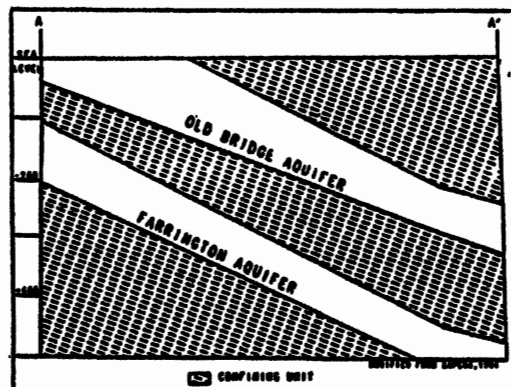
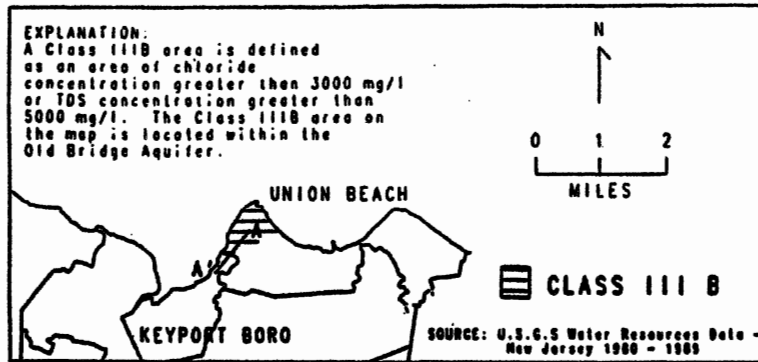
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
1990

FIGURE 4
NEW JERSEY GROUND WATER CLASSIFICATION SYSTEM
CLASS III B
FARRINGTON AQUIFER



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 1990

FIGURE 5
NEW JERSEY GROUND WATER CLASSIFICATION SYSTEM
CLASS III B
OLD BRIDGE AQUIFER



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
1980