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FS433

Fact sheet

Drinking Water Standards

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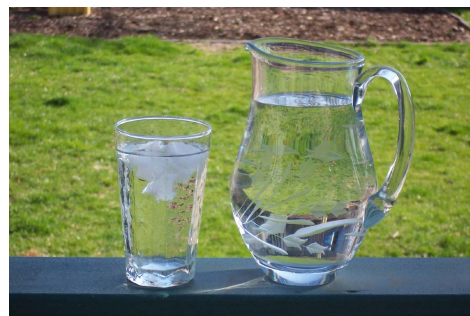


Photo Courtesy of Lisa Galloway Evrard

Drinking water standards are developed by both the Federal and State governments. In New Jersey, the NJDEP is the agency responsible for administering the Federal Safe Drinking Water Act and the New Jersey Safe Drinking Water Act to ensure safe drinking water for both the citizens of New Jersey and its visitors. All Federal regulations are automatically adopted into New Jersey regulations by reference. The quality standards adopted into regulation are the minimum considered necessary for the maintenance of public health.

These standards, known as maximum contaminant levels (MCLs) are the maximum permissible levels of all regulated contaminants allowed in public drinking water. All of the MCLs in effect in New Jersey are adopted from Federal regulation except for 18 synthetic organic MCLs developed by New Jersey. The more stringent regulation applies when standards are developed by both Federal and State drinking water agencies.

All public community water systems and non-community water systems must test their water on a rigid schedule and at specific locations.

Public community water systems include municipal water supplies and private water companies. Non-transient non-community water systems, such as schools, factories, office buildings, industrial parks, etc., test for all regulated contaminants except for radionuclides and disinfection by-products. Highway rest stops, restaurants, motels, parks, etc. (i.e., transient non-community water systems) test for coliform bacteria, nitrates, and nitrites.

If the level of any regulated contaminant is above the MCL, additional samples are taken to verify that a problem exists. Drinking water suppliers are required to notify customers if the levels of any monitored chemicals exceed the standards. The supplier is then required to resolve the problem by changing to another water source or by improving water treatment.

The following table lists the Primary and Secondary Drinking Water Standards for public drinking water supplies in New Jersey as of December 6, 2004. These regulations are subject to change. Contact the NJDEP Bureau of Safe Drinking Water, P.O. Box 402, Trenton, NJ 08625 (609) 292-5550, for further information.



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New Jersey State Primary Drinking Water Standards (as of 12/6/04)

Primary Drinking Water Standards are legally enforceable standards.

<u>VOLATILE ORGANIC COMPOUNDS</u>	<u>MCL (µg/l or ppb)</u>
Benzene	1*
Carbon Tetrachloride	2*
meta-Dichlorobenzene	600*
ortho-Dichlorobenzene	600
para-Dichlorobenzene	75
1,1-Dichloroethane	50*
1,2-Dichloroethane	2*
1,1-Dichloroethylene	2*
cis-1,2-Dichloroethylene	70
trans-1,2-Dichloroethylene	100
1,2-Dichloropropane	5
Ethylbenzene	700
Methyl tertiary Butyl Ether (MTBE)	70*
Methylene Chloride	3*
Monochlorobenzene	50*
Naphthalene	300*
Styrene	100
1,1,2,2,-Tetrachloroethane	1*
Tetrachloroethylene	1*
Toluene	1,000
1,2,4-Trichlorobenzene	9*
1,1,1-Trichloroethane	30*
1,1,2-Trichloroethane	3*
Trichloroethylene	1*
Vinyl Chloride	2
Xylenes (Total)	1,000*
 <u>SYNTHETIC ORGANIC COMPOUNDS</u>	 <u>MCL (µg/l or ppb)</u>
Alachlor	2
Aldicarb	+
Aldicarb Sulfone	+
Aldicarb Sulfoxide	+
Atrazine	3
Benzo(a)pyrene	0.2
Carbofuran	40
Chlordane	0.5*
Dalapon	200
Dibromochloropropane (DBCP)	0.2
Di(2-ethylhexyl)adipate	400
Di(2-ethylhexyl)phthalate	6
Dinoseb	7
Diquat	20
Endothall	100
Endrin	2
Ethylene dibromide (EDB)	0.05
Glyphosate	700
Heptachlor	0.4
Heptachlor Epoxide	0.2
Hexachlorobenzene	1

continued next page

Hexachlorocyclopentadiene	50
Lindane	0.2
Methoxychlor	40
Oxamyl	200
PCBs (polychlorinated biphenyls)	0.5
Pentachlorophenol	1
Picloram	500
Simazine	4
Toxaphene	3
2,3,7,8-TCDD (Dioxin)	3x10 ⁻⁵
2,4-D(2,3-Dichlorophenoxyacetic acid)	70
2,4,5-TP (Silvex)	50

INORGANICS

MCL (µg/l or ppb)

Antimony	6
Arsenic	50***
Asbestos	7x10 ⁶ fibers/l >10µm
Barium	2,000
Beryllium	4
Cadmium	5
Chromium	100
Copper	1,300**[AL]
Cyanide	200
Fluoride	4,000
Lead	15**[AL]
Mercury	2
Nickel	+
Nitrate[as nitrogen]	10,000
Nitrite	1,000
combined nitrate/nitrite	10,000
Selenium	50
Thallium	2

MICROBIOLOGICAL CONTAMINANTS

Coliform bacteria standards are based on the presence or absence of coliforms in a sample. The number of samples collected by a public water system is determined by the size of the population served. A system collecting at least 40 samples/month can have coliform in no more than 5% of the samples. A system collecting fewer than 40 samples/month can have no more than one coliform positive. Any number exceeding these amounts triggers an MCL exceedence.

TURBIDITY

Turbidity: No more than 5% of the samples may exceed 0.3 Nephelometric Turbidity Unit (NTU), nor any sample exceed 1 NTU

RADIOLOGICAL CONTAMINANTS

Gross alpha activity (including Radium 226, but excluding radon and uranium)	15 pCi/l
Radium 226/228	5 pCi/l
Beta/ photon emitters	4 mrem/yr
Uranium	30 µg/l

DISINFECTION BYPRODUCTS

MCL (µg/l)

Trihalomethanes (Total of Dichlorobromomethane, Chlorodibromomethane,	80 running annual average
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<i>Bromoform, and Chloroform)</i>	
Haloacetic acids (Total of Monochloroacetic, Dichloroacetic, Trichloroacetic, Bromoacetic, and Dibromoacetic acids)	60 running annual average
Chlorite (plants using chlorine dioxide)	1,000 daily/follow-up monitoring
Bromate (plants using ozone)	10 running annual average

* - *N.J. MCL*

** - *An action level (AL) is not an MCL. It is a trigger point at which remedial action is to take place.*

*** - *Current MCL. Effective January 23, 2006, the Federal arsenic MCL will be 10 ppb. The New Jersey MCL for arsenic of 5 ppb will be effective January 23, 2006.*

+ - *No MCL – monitoring required*

New Jersey State Secondary Drinking Water Standards (as of 12/6/04)

Secondary Drinking Water Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (e.g., skin or tooth discoloration) or aesthetic effects (e.g., taste, odor, or color) in drinking water.

PHYSICAL CHARACTERISTICS

Color	10 color units (standard cobalt scale)
pH	6.5 to 8.5 (optimum range)
Odor	3 Threshold odor number
Taste	No objectionable taste

RECOMMENDED UPPER LIMIT OR OPTIMUM RANGE

CHEMICAL CHARACTERISTICS

ABS/L.A.S.	0.5
Aluminum	0.2
Chloride	250
Fluoride	2
Hardness (as CaCO ₃)	250
Iron	0.3
Manganese	0.05
Silver	0.1
Sodium	50
Sulfate	250
Total Dissolved Solids	500
Zinc	5

RECOMMENDED UPPER LIMIT (mg/l or ppm)

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