

United States  
Environmental Protection  
Agency

EPA 570/9-89-005  
June 1989

Office of Water (WH-550)



# Is Your Drinking Water Safe?



---

# Is Your Drinking Water Safe?

## Introduction

Most Americans believe their drinking water is the best in the world. Servicemen and their families, vacationers, tourists, and others who travel abroad know the familiar problems of unsafe drinking water. At home we scarcely give it a thought. We believe that the purity of our water can be depended upon. And usually we are right. But there are exceptions.

These cases are serious enough to have moved the Congress of the United States to enact, in 1974, a far-reaching program to ensure that our drinking water is as good as we think it is. In 1986, Congress updated this program to set mandatory guidelines for regulating key contaminants, require the monitoring of unregulated contaminants, establish benchmarks for water treatment technologies, bolster enforcement, and promote protection of ground water sources. This comprehensive program--and what it means to your health--is the subject of this pamphlet.



---

## The Problem

If our water is good, why do we need a special program to protect it? The reason is that the situation has been changing dramatically during recent decades. Our sources of water supply, both surface and ground water, are being endangered by new chemicals or microbiological contaminants.

During these same years, our ability to detect contaminants has been improving. Modern science can now identify specific chemicals in terms of one part contaminant in one billion parts of water. In some cases, scientists can measure them in *trillionths*. One part per billion is equivalent to one pound in 500,000 tons or the first 16 inches or so of a trip to the moon. In case you think such small amounts can't be very significant, keep in mind that you can get sick from a single microscopic virus.

With information so detailed, new questions arise. What is the effect of consuming these contaminants in such small amounts over long periods of time? Doctors say that an *acute*, i.e., immediate illness, comes from this or that virus or poison. But *chronic*, i.e. long-term problems that develop over many years, are not so quickly diagnosed. There is genuine concern in the scientific community that prolonged exposure to certain elements, even at levels as low as a few parts per billion or trillion, may be increasing the incidence of cancer and heart disease.

The Centers for Disease Control tell us there were an average of almost 7,400 cases of illness in the United States linked to drinking water each year from 1971 to 1985. Total reported cases in this period ranged from 1983's high of 21,000 to 1985's low of 1,600. These

---

numbers are generally thought to be considerably lower than the actual figures because drinking water contaminants are not always considered suspect.

While we have almost eliminated typhoid and cholera as water problems, we must continue to address the threat of viruses and other disease-causing organisms, as well as chemical contamination.

Although we currently know a great deal about the health impacts of drinking water contamination, many questions remain. Ongoing research will no doubt provide new information which will answer some old questions and generate some new ones. Meanwhile, we can take the following steps to reduce the risks to our health:

- Ensure that our water is treated to remove harmful contaminants,
- Test or monitor the purity of our water regularly to ensure its quality, and
- Develop an informed citizenry.

---

## **The National Approach**

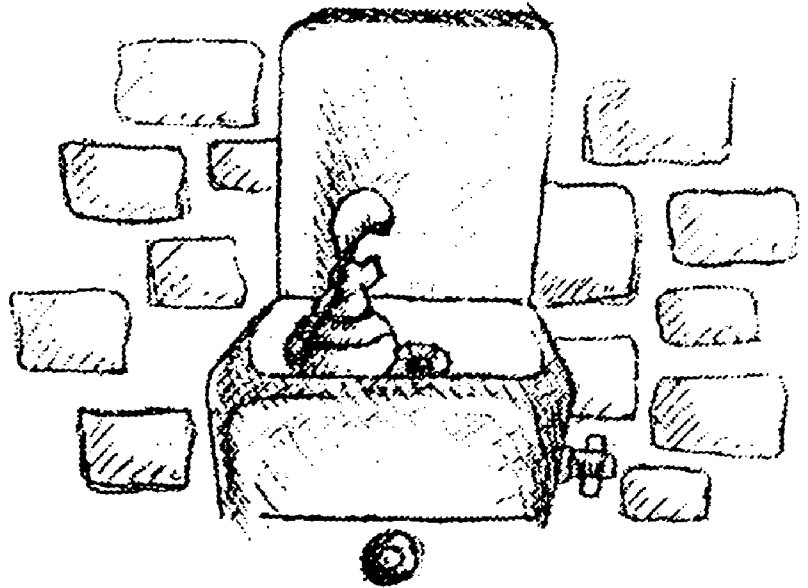
The Safe Drinking Water Act directs the U.S. Environmental Protection Agency (EPA) to establish minimum national drinking water standards. These standards set limits on the amounts of various substances sometimes found in drinking water.

This means that every public water supply in the country serving at least 15 service connections or 25 or more people must ensure that its water meets these minimum standards. Even non-community supplies, such as campgrounds and roadside motels with their own water supplies, are covered by the regulations.

In 1986, Congress passed a set of amendments that expanded the protection to be provided by the Safe Drinking Water Act of 1974. These amendments accelerated EPA's regulation of contaminants, banned all future use of lead pipe and lead solder in public drinking water systems, mandated greater protection of ground water sources of drinking water, and streamlined enforcement procedures to ensure that suppliers comply with the Act.

The amendments gave EPA three years to set standards for 83 contaminants, including 26 for which the Agency had already set enforceable Maximum Contaminant Levels (MCLs). In addition, EPA must set MCLs for at least 25 more contaminants by 1991 and must regulate an additional 25 every three years thereafter. Enforcement of each new standard will begin 18 months after each new or revised standard is set.

The lead ban prohibits the use of lead solders, flux and pipes in the installation or repair of public water systems and drinking water plumbing connected to these systems. Public water systems must tell their users of



the potential sources of lead contamination, its health effects, and the steps they can reasonably take to mitigate lead contamination. States are responsible for enforcing the lead ban, and EPA can withhold up to 5 percent of a State's Public Water System Supervision grant if the Agency determines the State is not enforcing the requirements.

Ground water has been protected under the 1974 Safe Drinking Water Act and by State programs that pre-date the Federal effort. The 1986 amendments extend that protection by establishing programs to protect critical ground water sources of drinking water, to protect areas around wells that supply public drinking water systems, and by regulating the underground injection of wastes above and below drinking water sources.

Enforcement is vital to the success of the Safe Drinking Water Act. The amendments to the Act authorize EPA to file civil suits or issue administrative orders against public water systems in violation when States are slow to take appropriate enforcement action, or when the State asks EPA to act. Maximum civil penalties are now \$25,000 per day of violation.

---

Small water systems face numerous obstacles to meeting these new mandates. Lack of resources and expertise are foremost among their problems. To help small systems comply with the new rules, EPA has taken steps to mobilize all groups interested in drinking water quality to use creative approaches to build local and State capacity through outreach, education, technical assistance, and other institutional support.

Large systems, most of which easily complied with the requirements of the 1974 Safe Drinking Water Act, are also challenged by the new requirements. For example, one amendment requires that granular activated carbon (GAC) filtration, an effective but expensive technology, be considered the "best available technology" for controlling synthetic organic chemicals. That means any other (cheaper) technology that a water system substitutes for GAC must control these contaminants at least as well.

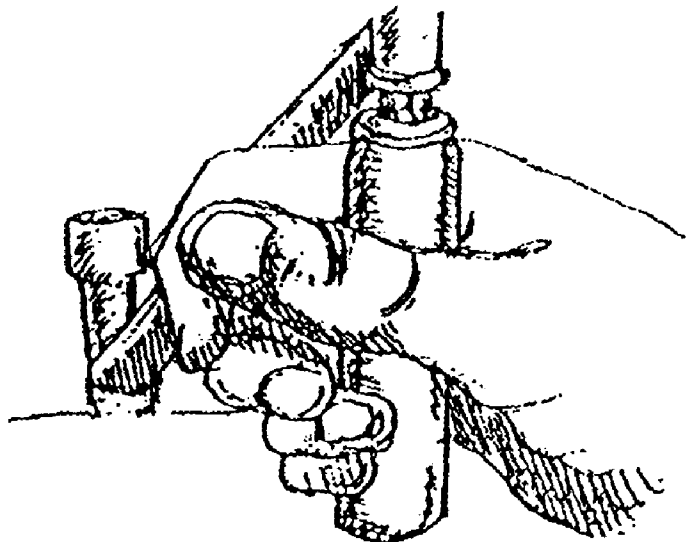
A new rule will require most large and small systems to filter surface water supplies of drinking water that are not adequately protected against contamination. Congress intended this requirement to protect the public against *Giardia lamblia*, a virulent protozoan, and other contaminants. Systems must also disinfect their drinking water supplies, something which all but some of the smallest have been doing all along. The filtration and disinfection requirements mean many drinking water systems must invest in new equipment.

---

## The State Role

In the 1974 Safe Drinking Water Act, Congress said it wanted to ensure safe drinking water for all Americans. Congress preferred that the States take on the responsibility for the new program, which would build on existing State programs. Since 1974, 54 States and territories have been granted primary enforcement authority for the program. EPA was responsible for protecting the quality of water on Indian lands. The 1986 amendments change that. Now, Indian tribes that meet the same criteria as States can assume primary enforcement authority over their drinking water. At publication, no Indian tribe has primacy for the drinking water program.

To be given primary enforcement authority for the program and to maintain it over time, a State or Indian tribe must adopt drinking water standards at least as stringent as the national ones. (They may set stricter standards if they wish.) Each State or tribe must also be able to carry out adequate monitoring and enforcement requirements. If a State or tribe cannot or does not do so, EPA will step in and conduct the program.





---

## **Public Notification**

Since June 24, 1977, Federal law has required your water supplier to periodically sample and test the water supplied to your tap. Most of the larger suppliers were already doing that. If the water supplier has not tested the water or if tests reveal that a national drinking water standard has been violated--that is, if there is too much of any substance for which a national standard has been set--your water supplier must move to correct the situation. The supplier must also notify the appropriate State agency of the violation.

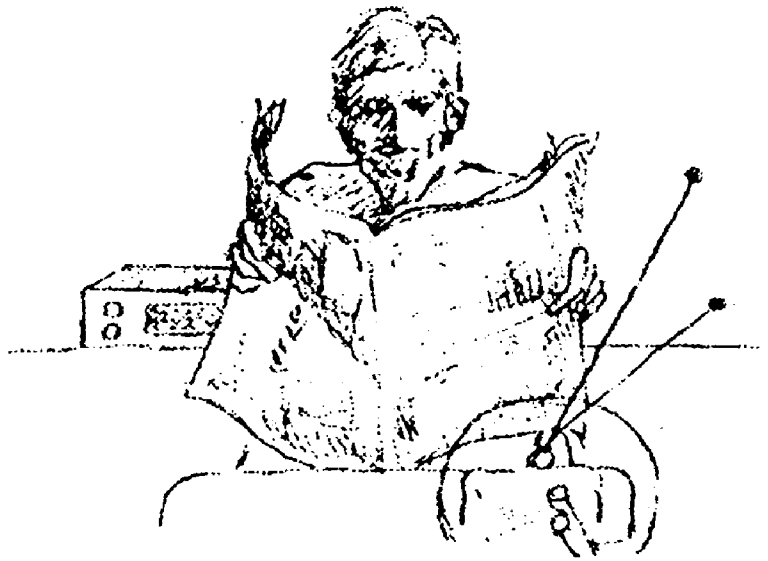
And you, the customer, must be notified too. You may sometimes be notified by:

- A notice in the newspaper,
- An announcement on the radio or television, or
- A letter from the health department or your water system,

Telling you that a drinking water standard has been violated.

If you hear or read an announcement that a drinking water standard has been violated, don't panic. The announcement will explain the problem and its potential adverse health effects. It will also explain what precautions you should take and what the system is doing to correct the problem. You will also be told whether you should seek alternate supplies of drinking water until the violation is corrected.

Water systems must notify the principal radio and television stations serving their areas within 72 hours of discovering a violation that poses an acute risk to human health. Public notice of acute violations must



appear in local newspapers with 14 days of their detection. Systems must report continuous violations every three months. Annual notification is required for less serious violations. This flexibility in public notification provided by the 1986 amendments means EPA and the States can devote more attention to keeping the public informed of truly serious risks.

Certain violations are cause for immediate action by consumers to ensure that public health is not endangered. Other MCL violations will not mean that your health is at risk immediately. The limit on the amount of each substance allowed in drinking water was based on what you can consume for a lifetime without adverse health effects. The limit was based on the consumption of two liters (a little more than two quarts) of water (or water-based fluids such as coffee, tea or soft drinks) every day for a lifetime. A large safety margin was built into most standards so that you will not be harmed even if the water you drink exceeds some of the maximum contaminant levels for short periods of time.

The fact that your State water agency or water supplier announces a violation of a drinking water standard is not by itself cause for alarm. It is a safety precaution required by Congress to call public attention to deficiencies in the drinking water supply. This procedure is intended to keep you informed so that you can make intelligent decisions about the problem.

---

In essence, Congress said in the Safe Drinking Water Act that you have a right to expect water that meets minimum national standards for protection of public health. You have a right to be told--and your water supplier *must* tell you--if your water does not meet these standards. Your supplier is also obliged to inform you if the water is not being monitored as required. With such information from the supplier or State, you will know what precautions to take. And you will be able to seek the attention of the water supplier through public opinion to do whatever is necessary to bring you safe water.

That might require major or minor improvements in your public water supply system. It might require a new source of water. Most large systems will probably be able to remedy any problems that may be discovered. Some smaller systems may not. In some cases, the best alternative might be to tie into a nearby system.

Whatever the alternative, the public has a right to know about the quality of its drinking water, and the supplier has the clear responsibility to correct violations promptly or provide alternative, safe sources. With that information, the public can then weigh all possible alternatives and help make the decisions needed to ensure safe drinking water.

If adequate steps are not taken to correct violations of safe drinking water standards, you have additional rights.

You--or any individual or organization--have the right to bring suit against anyone you believe is violating the law: the water supply system, the State, or EPA.

---

## **The Primary Standards**

The drinking water standards established by EPA reflect the best available scientific and technical judgement. They were refined by the suggestions and advice of a 15-member National Drinking Water Advisory Council, made up of representatives of the general public, State and local agencies, and experts in the field of public water supply. Also, EPA's Science Advisory Board, made up of scientists, reviews the regulations to be sure they are based on sound science. In addition, the regulations are reviewed in draft by other Federal agencies, environmental groups, and State and industry associations, and the public.

All EPA regulations are published for review and are subject to public hearings before they go into effect. The National Primary Drinking Water Regulations are no exception. Many witnesses testify at the public hearings and EPA receives thousands of statements on proposed requirements. EPA considers these comments when preparing the final version of the regulations.

The regulations set achievable levels of drinking water quality to protect your health. They were originally called "interim" regulations because the 1974 Act stipulated that EPA was to issue MCLs on an interim basis and then to revise them periodically. The final MCL for only one chemical, fluoride, had been issued when Congress dropped "interim" from the regulations' status. When that happened, interim MCLs for 25 contaminants and the final MCL for fluoride became National Primary Drinking Water Regulations.

The 1986 amendments require EPA to issue a Maximum Contaminant Level Goal (MCLG) along with an MCL. (MCLGs were known as Recommended Maximum Contaminant Levels before the amendments.) An

---

MCLG is an unenforceable health goal equal to the maximum level of a contaminant which is not expected to cause any adverse health effects over a lifetime of exposure and includes a margin of safety. EPA must, by law, set MCLs as close to MCLGs as technology and economics allow.

Not every contaminant must have an MCLG and an MCL. EPA can, instead, adopt a National Primary Drinking Water Regulation that requires the use of a specific treatment method to control a contaminant. The Agency has this option when it is not technically or economically feasible to determine how much of a contaminant is present in drinking water.

Most substances currently regulated under the Safe Drinking Water Act occur naturally in our environment and in the foods we eat. The national drinking water standards set by EPA reflect the levels we can safely consume in our water, taking into account the amounts we are exposed to from other sources.

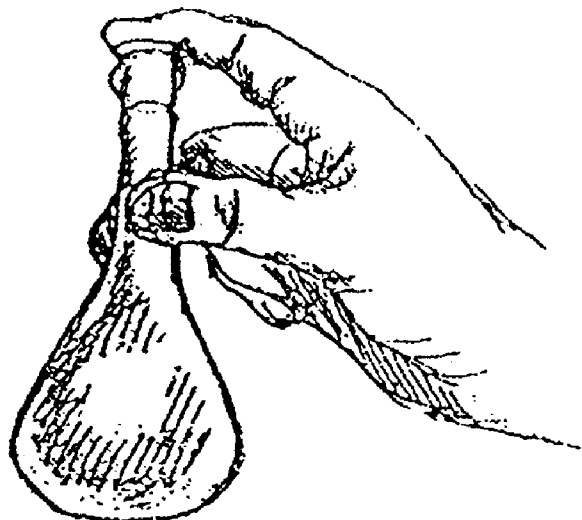
Only two substances for which standards have been set pose an immediate threat to health whenever they are exceeded:

**Bacteria**--Coliform bacteria from human and animal wastes may be found in drinking water if the water is not properly treated. These bacteria may cause disease themselves or indicate that other harmful organisms may be present in the water. Waterborne diseases such as typhoid, cholera, infectious hepatitis and dysentery have been traced to improperly disinfected drinking water. If you should receive notice that the bacteria level in your water exceeds the minimum standard, follow the directions given in the notice.

---

**Nitrate**--Nitrate in drinking water above the national standard poses an immediate threat to children six months to one year old. In some infants, excessive levels of nitrate have been known to react with the hemoglobin in the blood to produce an anemic condition commonly known as "blue baby." If you receive notice that your drinking water contains an excessive amount of nitrate, do not give the water to infants under three months of age and do not use it to prepare a formula. Do not boil the water because such boiling will only increase the nitrate concentration. Simply read the notice you receive and follow its instructions carefully.

The following table presents the National Primary Drinking Water Standards for 30 contaminants. In addition to MCLs, the health effects and sources of each contaminant are listed. Other than for bacteria and nitrate, as discussed above, water that exceeds the MCLs for the elements on the table will pose no immediate threat to public health. However, these substances must be controlled because drinking water that exceeds these standards over long periods of time may prove harmful.



# PRIMARY DRINKING WATER STANDARDS

Contaminants	Health Effects	MCL*	Sources
<b>Microbiological</b>			
Total Coliforms (Coliform bacteria, fecal coliform, streptococcal, and other bacteria)	Not necessarily disease producing themselves, but can be indicators of organisms that cause assorted gastroenteric infections, dysentery, hepatitis, typhoid fever, cholera, and others; also interfere with disinfection process.	1 per 100 milliliters	human and animal fecal matter
Turbidity	Interferes with disinfection	1-5tu	erosion, runoff, and discharges
<b>Inorganic Chemicals</b>			
Arsenic	Dermal and nervous system toxicity effects	.05	geological, pesticide residues, industrial waste and smelter operations
Barium	Circulatory system effects	1	
Cadmium	Kidney effects	.01	geological, mining and smelting
Chromium	Liver/kidney effects	.05	
Lead	Central and peripheral nervous system damage; kidney effects; highly toxic to infants and pregnant women	.05 **	leaches from lead pipes and lead-based solder pipe joints
Mercury	Central nervous system disorders; kidney effects	.002	used in manufacture of paint, paper, vinyl chloride, used in fungicides, and geological

\* In milligrams per liter, unless otherwise noted.

\*\* Agency considering substantially lower number.

## PRIMARY DRINKING WATER STANDARDS (Continued)

Contaminants	Health Effects	MCL*	Sources
Nitrate	Methemoglobinemia ("blue-baby syndrome")	10	fertilizer, sewage, feedlots, geological
Selenium	Gastrointestinal effects	.01	geological, mining
Silver	Skin discoloration (Argyria)	.05	geological, mining
Fluoride	Skeletal damage	4	geological, additive to drinking water, toothpaste, foods processed with fluorinated water
<b>Organic Chemicals</b>			
Endrin	Nervous system/ kidney effects	.0002	insecticide used on cotton, small grains, orchards (cancelled)
Lindane	Nervous system/ kidney effects	.004	insecticide used on seed and soil treatments, foliage application, wood protection
Methoxychlor	Nervous system/ kidney effects	.1	insecticide used on fruit trees, vegetables
2,4-D	Liver/kidney effects	.1	herbicide used to control broad-leaf weeds in agriculture, used on forests, range, pastures, and aquatic environments
2,4,5-TP Silvex	Liver/kidney effects	.01	herbicide (cancelled in 1984)
Toxaphene	Cancer risk	.005	insecticide used on cotton, corn, grain

\* In milligrams per liter, unless otherwise noted.



## PRIMARY DRINKING WATER STANDARDS (Continued)

Contaminants	Health Effects	MCL*	Sources
Benzene	Cancer	.005	fuel (leaking tanks), solvent commonly used in manufacture of industrial chemicals, pharmaceuticals, pesticides, paints and plastics
Carbon tetrachloride	Possible cancer	.005	common in cleaning agents, industrial wastes from manufacture of coolants
p-Dichlorobenzene	Possible cancer	.075	used in insecticides, moth balls, air deodorizers
1,2-Dichloroethane	Possible cancer	.005	used in manufacture of insecticides, gasoline
1,1-Dichloroethylene	Liver/kidney effects	.007	used in manufacture of plastics, dyes, perfumes, paints, SOCs
1,1,1-Trichloroethane	Nervous system problems	.2	used in manufacture of food wrappings, synthetic fibers
Trichloroethylene (TCE)	Possible cancer	.005	waste from disposal of dry cleaning materials and manufacture of pesticides, paints, waxes and varnishes, paint stripper, metal degreaser
Vinyl chloride	Cancer risk	.002	polyvinylchloride pipes and solvents used to join them, waste from manufacturing plastics and synthetic rubber

\* In milligrams per liter, unless otherwise noted.

## PRIMARY DRINKING WATER STANDARDS (Continued)

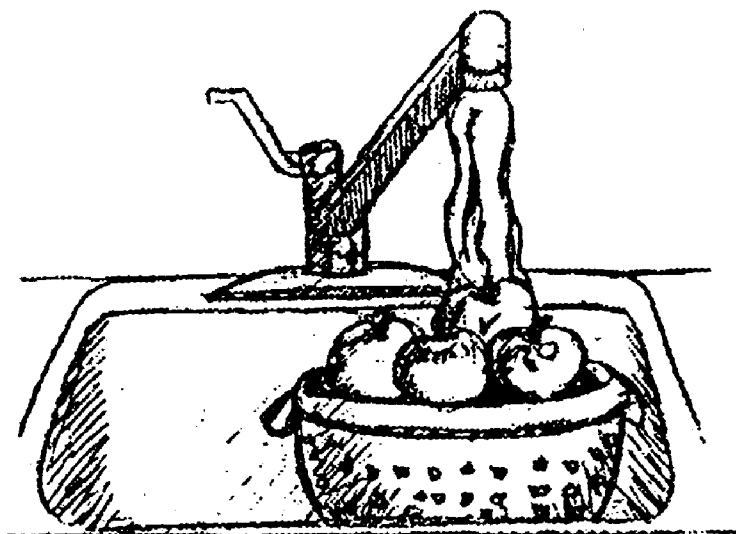
Contaminants	Health Effects	MCL*	Sources
<b>Total trihalomethanes (TTHM)</b> (chloroform, bromoform, bromodichloromethane, dibromochloromethane)	Cancer risk	.1	primarily formed when surface water containing organic matter is treated with chlorine
<b>Radionuclides</b>			
Gross alpha particle activity	Cancer	15 pCi/L	radioactive waste, uranium deposits
Gross beta particle activity	Cancer	4 mrem/yr	radioactive waste, uranium deposits
Radium 226 & 228 (total)	Bone cancer	5 pCi/L	radioactive waste, geological

\* In milligrams per liter, unless otherwise noted.

---

## The Secondary Standards

Unlike primary drinking water regulations, secondary drinking water regulations are not designed to protect the public health. Instead, they are intended to protect "public welfare" by providing guidelines regarding the taste, odor, color, and other aesthetic aspects of drinking water which do not present a health risk. The following table presents the effects of 13 contaminants for which EPA has developed Secondary Drinking Water Regulations for the States.



## SECONDARY DRINKING WATER STANDARDS

Contaminants	Suggested Levels	Contaminant Effects
pH	6.5 - 8.5	Water is too corrosive
Chloride	250 mg/l	Taste and corrosion of pipes
Copper	1 mg/l	Taste and staining of porcelain
Foaming agents	0.5 mg/l	Aesthetic
Sulfate	250 mg/l	Taste and laxative effects
Total dissolved solids (hardness)	500 mg/l	Taste and possible relation between low hardness and cardiovascular disease; also an indicator of corrosivity (related to lead levels in water); can damage plumbing and limit effectiveness of soaps and detergents
Zinc	5 mg/l	Taste
Fluoride	2.0 mg/l	Dental fluorosis (a brownish discoloration of the teeth)
Color	15 color units	Aesthetic
Corrosivity	non-corrosive	Aesthetic and health related (Corrosive water can leach pipe materials, such as lead, into drinking water.)
Iron	0.3 mg/l	Taste and staining of laundry
Manganese	0.05 mg/l	Taste and staining of laundry
Odor	3 threshold odor number	Aesthetic

*Secondary Drinking Water Standards are unenforceable federal guidelines regarding the taste, odor, color – and certain other non-aesthetic effects – of drinking water. EPA recommends them to the States as reasonable goals, but federal law does not require water systems to comply with them. States may, however, adopt their own enforceable regulations governing these concerns. To be safe, check your State's drinking water rules.*

---

## **Summary**

The Safe Drinking Water Act gave the country its first comprehensive national program to safeguard public drinking water. It established the national drinking water standards, which protect the health of everyone who receives drinking water from systems serving at least 25 people or having at least 15 service connections. More than 80 percent of the U.S. population and a quarter million drinking water systems, including non-community water systems, are affected by the Act.

In 1986, Congress amended the Safe Drinking Water Act in response to various concerns raised by the public, EPA, State governments, and the water supply industry. The pace of regulating drinking water contaminants was increased. EPA was given a schedule for regulating contaminants that threaten public health and deadlines for specifying criteria for the filtration of surface water supplies and the disinfection of drinking water from surface and ground water sources. The use of lead-containing plumbing materials in public water systems and private drinking water systems that connect to public supplies was outlawed.

The amendments also increased protection of ground water, a crucial source of drinking water. And they gave Indian tribes the same status as States in seeking primary responsibility for drinking water and underground injection control programs.

Many water supply systems will be able to meet the new national requirements with a minimum of effort. However, some water systems, especially the small ones, may have a hard time affording the investment in technology and technical expertise that these new regulations will require. EPA is providing them with technical assistance.

---

EPA is also aiding States that need help with technical assistance and grants for program administration. EPA is carrying on research to learn more about the health effects of other potential water contaminants, how to detect them in water, and how to get rid of them.

But the major responsibility for bringing you safe drinking water rests with your water supplier, your State, and ultimately with you as a concerned citizen.

This pamphlet has attempted to describe the drinking water program in simple, non-technical language. But the job of implementing the Safe Drinking Water Act and amendments is no simple matter. It is complex. It requires your cooperation and support.

And it requires your understanding that you may have to pay more for safe drinking water--especially if you are served by a small water supply system that has not kept up with modern technology.

It is expected that the cost of safe drinking water for some consumers will increase substantially as systems improve their disinfection or filtration practices. For consumers served by systems that have heavy metal or inorganic contaminant problems, the cost may be even greater.

Whatever the added cost might be, keep the alternatives in mind: water that's safe to drink, or the risk of disease or other harmful effects. It's a small price to pay for assuring yourself, your family, your community, and all Americans that our water is truly safe to drink.

---

## Need More Information?

Additional information about safe drinking water, the 1986 amendments to the Safe Drinking Water Act, and other related issues is available from EPA's Drinking Water Hotline: 1-800-426-4791 (in Alaska and the Washington, D.C. area, 202-382-5533). The following EPA regional offices and State agencies can also provide you with information.

---

### Regional Offices

**EPA Region I**  
Room 2203  
John F. Kennedy Federal  
Building  
Boston, MA 02203

**EPA Region II**  
26 Federal Plaza  
New York, NY 10278

**EPA Region III**  
841 Chestnut St.  
Philadelphia, PA 19107

**EPA Region IV**  
345 Courtland St., N.E.  
Atlanta, GA 30365

**EPA Region V**  
230 South Dearborn St.  
Chicago, IL 60604

**EPA Region VI**  
12th Floor, Suite 1200  
1445 Ross Ave.  
Dallas, TX 75270

**EPA Region VII**  
726 Minnesota Ave.  
Kansas City, KS 66101

**EPA Region VIII**  
Suite 500  
999 18th St.  
Denver, CO 80202-2405

**EPA Region IX**  
215 Freemont St.  
San Francisco, CA 94105

**EPA Region X**  
1200 Sixth Ave.  
Seattle, WA 98101

---

### States Covered

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

New Jersey, New York, Puerto Rico, Virgin Islands

Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Arkansas, Louisiana, New Mexico, Oklahoma, Texas

Iowa, Kansas, Missouri, Nebraska

Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

Arizona, California, Hawaii, Nevada, American Samoa, Trust Territories of the Pacific, Guam, Northern Marianas

Alaska, Idaho, Oregon, Washington

---

## State Water Supply Agencies

Water Supplies Section  
Connecticut Department of Health  
150 Washington Street  
Hartford, CT 06106  
(203) 566-1251

Division of Water Supply  
Department of Environmental Quality Engineering  
One Winter Street  
Boston, MA 02108  
(617) 292-5770

Division of Health Engineering  
Maine Department of Human Services  
State House (STA 10)  
Augusta, ME 04333  
(207) 289-5685

Water Supply Division  
New Hampshire Water Supply and Pollution Control Commission  
Post Office Box 95  
Hazen Drive  
Concord, NH 03301  
(603) 271-3503

Division of Water Supply  
Rhode Island Department of Health  
75 Davis Street, Health Building  
Providence, RI 02908  
(401) 277-6867

Environmental Health Division  
Vermont Department of Health  
60 Main Street  
Post Office Box 70  
Burlington, VT 05401  
(802) 863-7220

Bureau of Safe Drinking Water  
Division of Water Resources  
New Jersey Department of Environmental Protection  
Post Office Box CN-029  
Trenton, NJ 08625  
(609) 984-7945

Bureau of Public Water Supply Protection  
New York Department of Health  
2 University Place, Room 406  
Western Avenue  
Albany, NY 12203-3399  
(518) 458-6731

Water Supply Supervision Program  
Puerto Rico Department of Health  
Post Office Box 70184  
San Juan, Puerto Rico 00936  
(809) 766-1616

Public Water Supply System  
Government of Virgin Islands  
Post Office Box 4340  
Charlotte Amalie  
St. Thomas, Virgin Is. 00801  
(809) 774-3320

Office of Sanitary Engineering  
Division of Public Health  
Jesse Cooper Memorial Building  
Capital Square  
Dover, DE 19901  
(302) 736-4731

Water Hygiene Branch  
Department of Consumer and Regulatory Affairs  
5010 Overlook Ave., S.W.  
Washington, DC 20032  
(202) 767-7370

Division of Water Supply  
Office of Environmental Programs  
201 West Preston Street  
Baltimore, MD 21201  
(301) 225-6361

Division of Water Supplies  
Department of Environmental Resources  
Post Office Box 2357  
Harrisburg, PA 17120  
(717) 787-9035

Bureau of Water Supply Engineering  
Virginia Department of Health  
James Madison Building  
109 Governor Street  
Richmond, VA 23219  
(804) 786-1766

Drinking Water Division  
Office of Environmental Health Services  
State Department of Health  
1800 Washington St., East  
Charleston, West Virginia 25305  
(304) 348-2981

Water Supply Branch  
Department of Environmental Management  
1751 Federal Drive  
Montgomery, AL 36130  
(205) 271-7773

Drinking Water Program  
Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32301-8241  
(904) 487-1779

Water Protection Branch  
Environmental Protection Division  
Department of Natural Resources  
270 Washington Street, S.W.  
Atlanta, GA 30334  
(404) 656-5600

Division of Water  
Department of Environmental Protection  
18 Reilly Road, Fort Boone Plaza  
Frankfort, KY 40601  
(502) 564-3410



---

Division of Water Supply  
State Board of Health  
Post Office Box 1700  
Jackson, MS 39205  
(601) 960-7518

Water Supply Branch  
Division of Health Services  
Department of Human  
Resources  
Bath Building  
Post Office Box 2091  
Raleigh, NC 27602-2091  
(919) 733-2321

Bureau of Water & Special  
Environmental Programs  
Department of Health and  
Environmental Control  
2600 Bull Street  
Columbia, SC 29201  
(803) 734-5310

Division of Water Supply  
Tennessee Department of  
Health and Environment  
150 9th. Ave., North  
Nashville, TN 37219-5404  
(615) 741-6636

Division of Public Water  
Supplies  
Illinois Environmental  
Protection Agency  
2200 Churchill Rd.  
Springfield, IL 62706  
(217) 785-8653

Division of Public Water Supply  
Indiana State Board of Health  
5500 West Bradbury Ave.  
Indianapolis, IN 46241  
(317) 243-9100

Division of Water Supply  
Michigan Department of Public  
Health  
P.O. Box 30035  
Lansing, MI 48909  
(517) 335-8318

Section of Public Water  
Supplies  
Minnesota Department of  
Health  
717 Delaware St.  
Minneapolis, MN 55440  
(612) 623-5330

Office of Public Water Supply  
Ohio Environmental Protection  
Agency  
1800 Watermark Drive  
P.O. Box 1049  
Columbus, OH 43266-0149

Bureau of Water Supply  
Department of National  
Resources  
P.O. Box 7921  
Madison, WI 53707  
(608) 267-7651

Division of Engineering  
Arkansas Department of Health  
4815 West Markham St.  
Little Rock, AR 72205-3867  
(501) 661-2623

Office of Preventive and Public  
Health Services  
Louisiana Department of Health  
and Human Resources  
P.O. Box 60630  
New Orleans, LA 70160  
(504) 568-5105

Drinking Water Section  
New Mexico Health &  
Environment Department  
P.O. Box 968  
Santa Fe, NM 87504-0968  
(505) 827-2778

Water Facility Engineering  
Service  
Oklahoma State Department of  
Health  
P.O. Box 53551  
Oklahoma City, OK 73152  
(405) 271-5204

Division of Water Hygiene  
Texas Department of Health  
1100 West 49th St.  
Austin, TX 78756-3199  
(512) 458-7497

Environmental Protection  
Division  
Iowa Department of Natural  
Resources  
Wallace State Office Building  
900 East Grant St.  
Des Moines, IA 53109  
(515) 281-6284

Support Services Section  
Kansas Department of Health  
and the Environment  
Forbes Field  
Topeka, KS 66605  
(913) 296-5503

Public Drinking Water Program  
Division of Environmental  
Quality  
P.O. Box 176  
Jefferson City, MO 65102  
(314) 751-0535

Division of Environmental  
Health and Housing  
Surveillance  
Nebraska Department of Health  
301 Sentenial Mall South  
P.O. Box 95007, 3rd Floor  
Lincoln, NE 68509  
(402) 471-2674  
(402) 471-0510

Drinking Water Unit  
Colorado Department of Health  
4210 East 11th Ave.  
Denver, CO 80220  
(303) 331-4546

Bureau of Water Quality  
Health and Environmental  
Services  
Cogswell Building, Room A206  
Helena, MT 59620  
(406) 444-2406

---

Division of Water Supply and  
Pollution Control  
State Department of Health  
1200 Missouri Ave.  
Bismarck, ND 58501  
(701) 224-2354

Office of Drinking Water  
Department of Water and  
Natural Resources  
Joe Foss Building  
523 Capital Ave., East  
Pierre, SD 57501  
(605) 773-3754

Bureau of Drinking Water/  
Sanitation  
Utah Department of Health  
P.O. Box 16690  
Salt Lake City, UT 84116-0690  
(801) 538-6163

Water Quality Division  
Department of Environmental  
Quality  
401 West 19th St.  
Cheyenne, WY 82002  
(307) 777-7781

Field Services Section  
Office of Water Quality  
2655 East Magnolia St.  
Phoenix, AZ 85034  
(602) 392-4002

Sanitary Engineering Branch  
California Department of Health  
714 P St.  
Sacramento, CA 95814  
(916) 323-6111

Drinking Water Program  
Sanitation Branch  
Environmental Protection and  
Health Services Division  
P.O. Box 3378  
Honolulu, HI 96801  
(808) 548-4682

Public Health Engineering  
Nevada Department of Human  
Resources  
Consumer Health Protection  
Services  
505 East King St., Room 103  
Carson City, NV 89710  
(702) 885-4750

Guam Environmental Protection  
Agency  
Government of Guam  
P.O. Box 2999  
Agana, Guam 96910

Division of Environmental  
Quality  
Commonwealth of the Northern  
Mariana Islands  
P.O. Box 1304  
Saipan, Mariana Islands 96950

Marshall Islands Environmental  
Protection Authority  
Hospital  
Majuro, Marshall Islands 96960

FSM Environmental Protection  
Board  
FSM Health Services  
Kolonias, Pohnpei 96941

Palau Environmental Quality  
Protection Board  
Hospital  
Koror, Palau 96940

Alaska Drinking Water Program  
Water Quality Management  
Department of Environmental  
Conservation  
P.O. Box O  
Juneau, AK 99811  
(907) 465-2653

Bureau of Water Quality  
Division of Environment  
Idaho Department of Health  
and Welfare  
Statehouse  
Boise, ID 83720  
(208) 334-5867

Drinking Water Program  
Health Division  
Department of Human  
Resources  
1400 S.W. 5th Ave.  
Portland, OR 97201  
(503) 229-6310

Drinking Water Program  
Section  
Department of Social and  
Health Services  
Mail Stop LD-11  
Olympia, WA 98504  
(206) 753-5954