

# City of Pocatello

## WATER DEPARTMENT

### 1998 Water Quality Report

We are pleased to present a summary of the quality of the water provided to you during the past year. The 1996 Safe Drinking Water Act requires that water utilities issue an annual Consumer Confidence report to customers in addition to other notices that may be required by law. This report details where our drinking water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. The Pocatello Water Department is committed to providing you with the safest and most reliable water supply. Informed consumers are our best allies in maintaining safe drinking water.

#### Pocatello's Source of Supply

Pocatello is fortunate to have an inexpensive, reliable supply of high quality drinking water from a natural underground reservoir known as the Lower Portneuf River Aquifer. Pocatello takes 100% of its water from the aquifer. It is our only source of drinking water for the foreseeable future and is an irreplaceable resource. Preventing pollution is the first priority in protecting our groundwater supply. Our aquifer is extremely vulnerable to contamination from human activities. In fact, some area wells have already been closed because of the presence of chemicals in excess of Federal levels. We have 19 wells strategically placed throughout the city, and our pending wellhead protection program will restrict activities around the wells that could contaminate the water. It is always more expensive to clean up aquifer contamination than to prevent it. Last year, with the assistance of federal grant monies, we completed a wetland detention basin on South 1st Avenue near the Street Department shop. The wetland basin was designed to keep storm water from collecting and potentially contaminating our well, which is located nearby.

#### Water Quality

In addition to tests mandated by the SDWA, the Pocatello Water Department also tests for other substances and microscopic organisms found in water for which no standards have been set. We take the initiative to watch for things that have concerned people in our area, even though we are not required to do so. We are active in protecting our community, and we will notify you immediately of any waterborne health threat.

Disinfection of the water supply is accomplished by the use of chlorine. Water entering the distribution system is treated with approximately 0.3 ppm in order to maintain a free chlorine residual of 0.2 ppm as required by the State of Idaho Department of Environmental Quality (DEQ). The free chlorine residual continues to disinfect the water in the distribution system. Sixty samples are tested monthly for microbial organisms to ensure that the quality of our water is preserved. While you may have noticed boil orders in effect from time-to-time for surrounding communities, the City of Pocatello is pleased to report that we have not tested positive for any of these organisms.

Another measure we take to keep our water safe to drink once it enters our water distribution system is to flush all of our fire hydrants semi-annually, especially the ones on dead end lines. This flushes out water that may not have circulated because of low usage. It also helps eliminate the accumulation of particles (minerals, etc.) that settle onto the bottom of the pipes. When flushing fire hydrants, the high rate of flow stirs up the system and can cause the water to have a dirty appearance which typically clears up after a short period of time. In addition to discharging the excessive particles, it also allows us to exercise the hydrants to ensure that they are operable.

In general, the City of Pocatello's water quality is nearly neutral having an average pH factor of 7.7, meaning the water is slightly alkaline (neutral water has a pH factor of 7.0). The water in our system is considered very hard. It contains approximately 21 grains per gallon (or 360 mg/L) of hardness. The hardness is due to dissolved minerals, primarily calcium carbonate, in the water. These dissolved minerals are not harmful to your health, but they can leave water spots which make cleaning more difficult. These minerals precipitate into small grains in ice cubes and create a white film in hot coffee or tea.

#### Interesting Facts About Our System

In 1998, the Pocatello Water Department distributed 4.9 billion gallons of water (15,000 acre feet) to its customers. In February 1998, we produced 206 million gallons of water, which is an average of 7.4 million gallons per day compared with July 1998 when we produced more than 901 million gallons which equates to 29 million gallons per day. This fluctuation is attributed primarily to summer irrigation.

The City's 19 wells have a daily pumping capacity of more than 50 million gallons of water, and the 14 reservoirs have a storage capacity of 23.6 million gallons. Prior to January 1, 2000, these tanks will be filled to capacity in the event that unforeseen problems arise from the year 2000 (Y2K) conversion. As part of our emergency planning, we have truck and trailer mounted generators, which can generate enough power to operate our pumps on a limited basis. During an emergency situation, maintaining an adequate water supply will be given top priority.

Our capital improvement program allows us to replace outdated and inadequate main lines and pumping equipment. Last year we installed/replaced more than 16,000 feet of mains, and we accepted 7,600 feet of new mains into our system that were installed by contractors. There are more than 15,000 service line connections that supply our residents and businesses with water.

#### Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

#### Contaminants that may be present in source water before we treat it include:

- Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

#### Explanation of the Water Quality Data Table

This report is based upon tests conducted by the City of Pocatello Water Department. Terms used in the Water Quality Table and in other parts of this report are defined on the other side of this form.

WATER QUALITY RESULTS							
Substance	Date Tested	Units	EPA's Standards		Pocatello's Results		Sources of Contaminant
			MCLG	MCL	Minimum	Maximum	
<b>Detected Inorganic Chemicals - Primary Standards (Directly related to the safety of drinking water)</b>							
Fluoride	10/19/98	ppm	4	4	ND	.34	Erosion of natural deposits.
Nitrate	10/19/98	ppm	10	10	1.83	5.77	Erosion of natural deposits.
Barium	10/19/98	ppm	2	2	0.13	0.13	Erosion of natural deposits.
<b>Radioactive Contaminants (Emitted from certain naturally occurring minerals as they decay.)</b>							
Alpha emitters	12/30/96	pCi/l	0	15	1.0	8.0	Erosion of natural deposits.
Beta/Photon emitters	3/29/96	pCi/l	0	50	5.0	18.0	Decay of natural man-made deposits.
<b>Volatile Organic Contaminants (Includes petroleum-based chemicals, industrial by-products, and dry cleaning solvents.)</b>							
Tetrachloroethylene	10/19/98	ppb	0	5	ND	1.5	Waste fluids from factories and dry cleaners.
Trichloroethylene	10/19/98	ppb	0	5	ND	3.8	Waste fluids from metal degreasing sites and other factories.
TTHM's [Total Trihalomethanes]	10/19/98	ppb	0	100	ND	16.8	By-product of drinking water chlorination.
<b>Lead &amp; Copper Sampling at Residential Water Taps</b>							
Lead	3/21/94	ppb MCLG 0 MCL 15	Action level: 90% of homes tested must have lead levels less than 15 ppb. Although we had two samples that exceeded the MCL, at the 90% level, our range was <2 ppb to 8 ppb.		<2 ppb	17 ppb	Corrosion of household plumbing systems.
Copper	3/21/94	1.3 ppm	Action level: 90% of homes tested must have copper levels less than 1.3 ppm. See explanation below.		.25 ppm	2.21 ppm	Corrosion of household plumbing systems.

#### Explanation of Violation for Copper

**Action Taken:** The City of Pocatello sampled for dissolved copper levels in 1994 and exceeded the action level of 1.3 ppm in nine of the 61 samples collected. If action levels are exceeded in more than 10% of the samples, the EPA requires water utilities to undergo additional sampling or install a treatment technique to reduce the copper to acceptable levels, which is what has happened in Pocatello. Because there is a potential for sampling error, EPA suggests resampling prior to implementing any type of treatment program. This fall, the City will retest the water to detect excess copper to ensure the water system is in compliance with all State and Federal regulations and that the sampling accurately reflects the quantity of copper in our water. If the results are not within the regulatory limits, a remediation plan will be implemented.

Because copper enters drinking water mainly from the corrosion of copper pipes and generally occurs after water has left the City of Pocatello's water system, the best place to test for copper is at the kitchen faucet. We have tested for copper at the supply source, and the levels are less than 0.1 ppm, which is well below the action level of 1.3 ppm.

During the initial sampling campaign, it was discovered that the homes in Pocatello which have experienced higher levels of dissolved copper are in areas serviced by underground power or are older homes that have their electrical system grounded to the water pipes. Apparently, it is possible to cause copper corrosion due to electrical currents in the water line. The City has installed devices at the water meter to interrupt stray currents in an effort to determine the effect of this phenomenon.

**Health Effects:** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their doctor.

**Concerning Nitrate in Drinking Water:** Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

**Concerning Trichloroethylene in Drinking Water:** The presence of TCE was detected in minute quantities in seven City wells. In addition, two wells, which exceeded the safe drinking water standards, were taken off-line until such time the contamination level decreases below the MCL. The City is continuing to work toward a solution for cleaning up the aquifer through proven scientific methods.

**Health Effects:** Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

#### Source Water Assessment

The 1996 Safe Drinking Water Act amendments created a new program of source water assessments. The purpose of this requirement is to identify, to the extent practicable, the origins of regulated and certain unregulated contaminants in the delineated area in order to determine the susceptibility of public water systems to these contaminants. The City of Pocatello Water Department will be working with in the near future to complete the assessment.

#### FREQUENTLY ASKED QUESTIONS

##### Is lead a hazard in our water?

Drinking water in our system contains less than one part per billion of lead which is well below the federal EPA standard. Because of the hardness of our water, it deposits a protective coating on the inside of the water pipes in the distribution system and inside your home. Higher concentrations of lead levels at the consumers taps can occur when water comes into contact with lead pipes, copper pipes with lead solder or faucets containing lead. Lead solder was banned for use on drinking water pipes in the United States in 1988. The greatest risk occurs when water has been sitting in the pipe for several hours which can allow the lead to leach from plumbing materials. However, we have tested water in homes that might have the greatest risk of lead in the water, and found two samples which exceeded the MCL.

##### Is fluoride added to the water supply?

The City of Pocatello does not add fluoride to the water supply. There is a trace amount of naturally occurring fluoride in our drinking water. This level is well within federal requirements and has not been found to be harmful.

##### What are the white particles at the bottom of my ice water glass?

Undissolved minerals can appear when ice cubes are added to chill drinking water. Freezing tap water causes dissolved minerals to solidify and scatter, giving a cloudy appearance. When these ice cubes melt, any undissolved minerals settle to the bottom. Mineral compounds in our drinking water are naturally occurring and safe.

##### Why does my water sometimes appear cloudy?

Pumping the water can trap tiny air bubbles which can cause the water to appear cloudy. Running your water for a few minutes should take care of the problem. If not, please contact the Water Department Repair Shop at 234-6180.

##### Can I improve the taste of my water?

If you chill your water in the refrigerator for at least two hours, it will improve the taste.

The City of Pocatello Water Department encourages public interest and participation in our community's decisions affecting drinking water. Regular Pocatello City Council Meetings occur on the 1st Thursday of each month beginning at 6:00 p.m., at 911 North 7th Avenue in the City Council Chambers. The agendas for these meetings are posted on the bulletin boards at City Hall and at the Marshall Public Library, and on the Internet at [www.ci.pocatello.id.us](http://www.ci.pocatello.id.us).

For more information regarding water quality, contact the City of Pocatello Water Superintendent's Office at (208) 234-6174 or visit our web site at [www.ci.pocatello.id.us/pkyh2o.html](http://www.ci.pocatello.id.us/pkyh2o.html).

# SAFE DRINKING WATER ACT

**Why should you read this?**

**Why you need to read:**

A survey conducted by the American Water Works Research Foundation in 1993 found that nearly two-thirds of water consumers surveyed said they received "very little" or "no" information on the quality of their water. The water quality reports will increase the availability of information. Informed and involved citizens can be strong allies of water systems, large and small, as they take action on pressing problems. Also, an increase in public awareness can give sensitive subpopulations the information that they need to protect themselves.

**What are drinking water standards:**

Drinking water standards are regulations that the EPA sets to control the level of contaminants in the nation's drinking water. These standards are part of the Safe Drinking Water Act's "multiple barrier" approach to drinking water protection, which includes assessing and protecting drinking water sources; protecting wells and collection systems; making sure water is treated by qualified operators; ensuring the integrity of distribution systems; and making information available to the public on the quality of their drinking water. With the involvement of the EPA, states, tribes, drinking water utilities, communities and citizens, these multiple barriers ensure that tap water in the United States and territories is safe to drink. In most cases, the EPA delegates responsibility for implementing drinking water standards to states and tribes.

**What is in your water?**

# SAFEDRINKING WATER ACT

What  
does  
this  
mean  
for  
you?

# Definitions You Need to Know



The Safe Drinking Water Act (SDWA) was signed into law on December 16, 1974. The purpose of the law is to assure that the nation's water supply systems serving the public meet minimum national standards for the protection of public health.

The SDWA covers all public water systems with piped water for human consumption with at least 15 service connections or a system that regularly serves at least 25 individuals. The SDWA directed the U.S. Environmental Protection Agency (EPA) to establish national drinking water standards. These standards limit the amount of certain contaminants provided by public water. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the [EPA Safe Drinking Water Hotline \(800-426-4791\)](tel:800-426-4791).

**Non-Detects (ND)** – Laboratory analysis indicates that the constituent is not present.

**Parts per million (ppm) or Milligrams per liter (mg/l)** – One part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per billion (ppb) – or Micrograms per liter** – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per trillion (ppt) – or Nanograms per liter (nanograms/l)** – One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

**Parts per quadrillion (ppq) or Picograms per liter (picograms/l)** – One part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.

**Picocuries per liter (pCi/L)** – Picocuries per liter is a measure of the radioactivity in water.

**Millirems per year (mrem/yr)** – Measure of radiation absorbed by the body.

**Million Fibers per Liter (MFL)** – Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

**Nephelometric Turbidity Unit (NTU)** – Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Variations & Exemptions (V&E)** – State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

**Action Level** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Treatment Technique (TT)** – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**Maximum Contaminant Level** – The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal** – The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.