

2009 Annual Report to Consumers

Tap Water Quality

This information applies only to water provided by Parker Water & Sanitation District PWSID# CO0118040.

Parker Water & Sanitation District is committed to providing residents with a safe and reliable supply of high-quality drinking water. Testing is done using sophisticated equipment and advanced procedures to detect possible drinking water contaminants. The District's water meets, or exceeds, state and federal standards for both appearance and safety. This annual "Consumer Confidence Report," required by the Safe Drinking Water Act (SDWA) & Public Notification Rule, explains the water source, test results, and other important information about your drinking water.

Contacts and Public Comment Information

Contact the Operations Manager, James Roche, at 303-841-2058 with questions or comments about the Consumer Confidence report, or other drinking water concerns. District board meetings are open to the public and are held the second and fourth Thursday of every month at 7:00pm. The meetings are held at the North Wastewater Reclamation Facility, located at: 18100 E. Woodman Drive Parker, CO 80134. Contact Frank Jaeger, District Manager, at 303-841-4627 for information on other opportunities for public participation in decisions about drinking water.

Overview

Parker Water & Sanitation District is meeting the demand for water by working on the construction of the Reuter-Hess Reservoir and maintaining existing wells. For more information on long-term planning, contact the District office or visit the District web site: www.pwsd.org.

Water Source

The District is currently reliant upon groundwater wells located throughout the Parker area. The wells penetrate the Cherry Creek Alluvium as well as the Denver, Dawson, Arapahoe, and Laramie Fox Hill aquifers with depths ranging from 52 feet to 2700 feet.

The Colorado Department of Public Health and Environment has provided us with a Source Water Assessment Report for our water supply, you may obtain a copy of the report by visiting www.cdphe.state.co.us/wq/sw/swaphom.html or by contacting James Roche at 303-841-2058.

The Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It does not mean that the contamination **has or will** occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

The potential sources of discrete contamination to the water system, as stated in the revised Source Water Assessment Report, include aboveground, underground and leaking storage tank sites and other facilities. Potential sources of contamination in our area also include possible accidental hazardous materials releases.

The potential contamination from dispersed contaminant sources includes the following:

- Commercial, industrial/transportation
- High intensity residential
- Low intensity residential
- Urban Recreational grasses
- Row crops
- Fallow

Small grains
Pasture/Hay
Evergreen forest
Septic Systems
Road miles

Please contact PWSB if you have questions or concerns regarding this information.

Water Protection

Residents can help to protect source water quality by disposing of household chemical wastes properly. The Household Chemical Roundup is held annually in Parker. For more information about this event or how to properly dispose of waste, please call Parker Water and Sanitation or visit <http://www.tchd.org/householdchemical.htm>.

Water Conservation

Parker Water & Sanitation District strongly encourages water conservation to preserve our limited resources. The majority of our groundwater supply is finite and is being depleted rapidly. Currently, irrigation of lawns and gardens is the single greatest demand on our water supply. Reducing reliance on drinking water for irrigation can greatly reduce the burden on our diminishing supplies. For more information on reducing your irrigation water consumption, contact Craig Miller, the Parker Water and Sanitation District Water Conservation Specialist, at 303-841-2058.

Utilizing water saving appliances, showerheads, faucets, fixing leaks, and not running water excessively can also aid in conservation. The District offers 2.0 gpm showerheads to any customer. You can receive one of these showerheads at the District office. Please conserve whenever possible.

Possible Drinking Water Contaminants

The sources of drinking water (both tap 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, in some cases, 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 include:

- *Microbial contaminants*, such as viruses and bacteria that 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides* that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.
- *Radioactive contaminants* can be naturally occurring or be the result of oil and gas production and mining activities.

Given the location and depth of our source water, the occurrence of pollution, other than naturally occurring, is not likely. Shallow wells are more susceptible to potential contamination, and it is possible that groundwater contamination could occur due to infiltration from Cherry Creek or storm runoff drainage that contains pollutants. Consequently, it is critical to keep chemical spills and urban and agricultural runoff from entering our groundwater and surface water. This is also why we continually test our wells for contaminants.

An Explanation of the Water Quality Data Table

The table shows the results of water quality analysis from the latest routine samplings. Every regulated contaminant **detected**, even in the minutest traces, is listed. The table contains the name of each substance; the highest level allowed by the Safe Drinking Water Act, the ideal goals for public health, the amount detected, the usual source of such contamination, footnotes explaining the findings, and a key to units of measurement.

Important Terms and Abbreviations

- **Maximum Contaminant Level or MCL:** 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 or MCLG:** 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.
- **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 (µg/L)**- one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Gross Alpha, Including RA, Excluding RN & U:** This is the gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium.

(Table is a separate document)

TABLE KEY

AL	Action Level
BDL	Below Detection Limit
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
ND	Non-Detect
pci/l	Picocuries per liter (a measure of radioactivity)
ppm	Parts per million, or milligrams per liter (mg/l)
ppb	Parts per billion or micrograms per liter (µg/l)

Water Quality Table Footnotes

- 1 The 90th percentile for lead sample results was 0.0027 ppm.
- 2 The 90th percentile for copper sample results was 0.74 ppm.
- 3 Parker Water and Sanitation does not add fluoride to the drinking water.
- 4 Reported value is Free Chlorine

- 5 Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor or color) in drinking water. EPA recommends these standards, but does not require water systems to comply.

The State permits monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of this data is more than one year old.

Unregulated Contaminants

Parker Water & Sanitation District is not required to test for Cryptosporidium since our water source is groundwater and Cryptosporidium is typically found in surface water contaminated by animal waste.

The EPA also requires unregulated contaminant monitoring for compounds that are suspected, but not yet listed as drinking water contaminants. The second set of Unregulated Contaminants was sampled for in 2009 and no analytes were detected at any concentration.

Non-Detected Contaminants

In addition to the compounds listed in the table above, our water was analyzed for many contaminants that were not detected. These compounds are not listed. If you have any concerns about contaminants not addressed in this report, feel free to contact Lisa Dillow, Laboratory Supervisor, at 303-841-2058.

Non-Health Related Water Quality

The ground water sources currently utilized in the District contain minerals resulting in a soft to moderately hard water. Hardness is not a regulated contaminant, but does have associated aesthetic and functional concerns. Hardness can reduce effectiveness of soaps and form scale or deposits. The minerals that make up hardness in water are a necessary dietary requirement. Updated hardness values for the drinking water can be found at www.pwsd.org.

The District's well water also contains iron and manganese that can discolor the water. Iron generally turns the water an orange or red color, while manganese can be gray to black. These minerals are also not regulated contaminants, and pose no health concern at the concentrations in our water. Iron and manganese

are also necessary dietary requirements. These minerals can make water look unappealing, can stain clothes, appliances and fixtures.

The District is currently adding a polyphosphate blend to our well water to keep the iron, manganese, and hardness in solution. For more information regarding red water or to report a problem, please visit our website at www.pwsd.org.

Additional Health Information

All drinking water, even bottled water, may reasonably be expected to contain at least small amounts of some contaminants. To ensure that tap water is safe to drink, the EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. The FDA regulates limits for contaminants in bottled water. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Special Populations

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, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. In these instances, advice about drinking water should be sought from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

El informe contiene informacion importante sobre la calidad del agua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.

Contaminant	Test Date	Unit	MCL	MCLG	Highest Detected Level	Range	Typical Sources	Violation
Inorganic and Organic Contaminants:								
1 Lead	2008	ppm	AL=0.015	0	0.0083	<0.001 - 0.0083	Corrosion of plumbing systems	NO
Barium	2009	ppm	2	2	0.2	0.097 - 0.2	Erosion of natural deposits	NO
2 Copper	2008	ppm	AL=1.3	1.3	1	0.13-1.0	Corrosion of plumbing systems	NO
3 Fluoride	2009	ppm	4	4	2	0.8-2	Erosion of natural deposits	NO
4 Chlorine residual	2009	ppm	4.0 MRDL	4.0 MRDLG	2.2	0.08-2.2	Water additive used to control microbes	NO
Nitrate	2009	ppm	10	10	< 0.1	< 0.1 - 1.36	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	NO
Radioactive Contaminants:								
Alpha Emitters	2009	pci/L	15	0	5.7	5.5-5.7	Erosion of natural deposits	NO
Beta/photon emitters	2009	pci/L	50	0	10.3	8.1-10.3	Decay of natural & man-made deposits	NO
Combined Radium	2009	pci/L	5	0	2.3	2.1-2.3	Erosion of natural deposits	NO
Uranium	2009	ppb	0	30	13.9	13.4-13.9	Erosion of natural deposits	NO
Disinfection Byproducts:								
Haloacetic Acids (HAA)	2009	ppb	60	NA	1-4.8	BDL - 4.8	By-product of drinking water disinfection	NO
Total Trihalomethanes (TTHMs)	2009	ppb	80	NA	34.8	BDL - 34.8	By-product of drinking water disinfection	NO
5 Secondary Contaminants and Other Monitoring								
Contaminant	Test Date	Unit	Highest Detected Value	Range	Secondary Standard			
Sodium	2009	ppm	63	23-63	10,000			NO
Nickel	2009	ppm	0.0034	0.0015-0.0034	0.1			NO
Iron	2009	ppm	0.42	0.043-0.42	0.3			NO
Manganese	2009	ppm	0.049	0.012-0.049	0.05			NO