

# ANNUAL DRINKING WATER QUALITY REPORT

PWSID CO 0159105

Year 2005

## SNAKE RIVER WATER DISTRICT

P.O. Box 2595

Dillon, CO 80435

Does not include the Keystone Ranch or East & West Parcels

Serving Base I-II-III & IV of Keystone and Area

Office 0050 ORO GRANDE DRIVE

KEYSTONE, COLORADO 80435

(970) 468-0328

As a customer of The Snake River Water District, this report is designed to inform you about the water quality of The District for the year ended 12/31/05. Our goal is to provide you with a safe and dependable supply of potable water. Our water sources are 90 to 120 foot deep water wells which draw from the alluvium of the Snake River. The water we deliver to your home or business meets or better all federal and state drinking water regulations. If you have any questions about this report, please feel free to contact the District Administrator - Barbara Mertus Munyon at (970) 468-0328 or The District Superintendent - Dave Morris at (970) 468-6875 Ext. 20.

The District routinely monitors for constituents in the water supply according to Federal and State regulations. Unless otherwise noted, the following tables show the results of our monitoring for the period of January 1 to December 31, of 2005. All drinking water, including bottled drinking water, may reasonably be expected to contain small amounts of some constituents. It is important to remember that the presence of constituents does not necessarily pose a health risk.

The sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs and water wells. As water travels over the surface of the land, or through the ground, it dissolves naturally occurring minerals; in some instances, radioactive material. A water supply can pick up substances from the presence of animals or human activity. Another potential source of contamination to The Snake River Water District water supply are accidents involving the transportation of hazardous materials on the west side of Loveland Pass/U.S. 6. Such an incident could cause possible contamination of the alluvium. Every effort is made to clean up these spills as soon as possible after they occur.

Contaminants that may be present in our source water include:

**Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agriculture 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**, which 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 by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff, and septic systems.

**Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The following definitions are of terms utilized in the table on the next page.

**Non-Detects (ND)** – Laboratory analysis indicates that the constituent is not present at the lowest level of detection.

**Below Detection Level (BDL)** – Same as ND

**Not Tested (NT)** – Usually waived for testing based on contamination sources.

**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 (ug/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)** – a measure of radioactivity in water.

**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.

**Action Level (AL)** – 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 allowed in drinking water. MCL’s are set as close to the MCLG’s 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. MCLG’s allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL)** – The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of Microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG)** – The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLG’s do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Highest Detection Level (HDL)** – The level of highest detection at one of multiple sites.

**Variance or Exemptions** – Permission to not meet a MCL, MRDL, AL or a treatment technique granted by the State or EPA. No variances or exceptions have been issued for our system.

**Waiver** - State permission not to test for a specific contamination. Testing for Dioxin, Glyph sate, Asbestos and Cyanide have been waived for this report.

## TEST RESULTS

The state permits monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. A portion of our data, though representative, is more than one year old.

Contaminant	Sample Date	Violation Y/N	Level Detected	Unit Measure	MCLG	MCL	Likely source of Contamination
<b><u>Microbiological Contaminants</u></b>							
<b>Total Coliform Bacteria</b>							
All samples taken in 2005 show the absence of Total Coliform bacteria in the samples. Ten samples are taken once per month at various customer sampling points.							
<b><u>Radioactive Contaminants</u></b>							
Alpha	2/19/2001	No	BDL	pCi/l	0	15	Erosion of natural & man made deposits
Beta	2/19/2001	No	HDL 5.4 Range 0.1 - 5.4	pCi/l	0	50	Decay of Natural and man made deposits
Radium 228	3/2/2004 & 12/15/2004	No	HDL 1.73 Range 0.32 - 1.73	pCi/l	0	5	Erosion of natural deposits
<b><u>Inorganic Contaminants</u></b>							
Antimony	3/15/2005	No	BDL	ppb	6	6	Discharge from oil ref., fire retardants, elec. Solder
Arsenic	3/15/2005	No	HDL 0.7 Range BDL - 0.7	ppb	n/a	10	Erosion from natural deposits
Barium	3/15/2005	No	HDL 0.035 Range 0.018 - 0.035	ppm	2	2	Erosion of natural deposits
Beryllium	3/15/2005	No	BDL	ppb	4	4	Discharge from metal refineries
Cadmium	3/15/2005	No	BDL	ppb	5	5	Corrosion of galv pipe & mining disch
Chromium	3/15/2005	No	BDL	ppb	100	100	Erosion of natural deposits
Copper	7/16/2002	No	0.523	ppm	1.3	AL=1.3	Corrosion of plumbing
Fluoride	3/29/2005	No	HDL 0.2 Range BDL - 0.2	ppm	4	4	Erosion of natural deposits
Lead	7/16/2002	No	4.9	ppb	0	AL=15	Corrosion of plumbing
Mercury	3/15/2005	No	BDL	ppb	2	2	Erosion of natural deposits
Nitrate	3/15/2005	No	HDL 0.31 Range 0.23 - 0.31	ppm	10	10	Fertilizer use, septic tanks
Nitrite	3/15/2005	No	BDL	ppm	1	1	Fertilizer use, septic tanks
Seienium	3/15/2005	No	BDL	ppb	50	50	Discharge from mines
Thallium	3/15/2005	No	HDL 0.2 Range BDL - 0.2	ppb	0.5	2	Leaching from ore processing sites
Nickel	3/15/2005	No	BDL	ppb	100	100	Erosion of natural deposits

**Synthetic Organic Contaminants Including Pesticides and Herbicides**

The following listed regulated contaminants were tested with no detection in the sample. The date of the sampling was 3/31/03.

2, 4-D	2, 4, 5-TP (Silvex)	Atrazine	Alachlor
Benzo(a)pyrene(PAH)	Carbofuran	Chlordane	Dalapon
Di(2-ethylhexyl) adipate	Dinoseb	Diquat	
Di(2-ethylhexyl) phthalate	Endothall	Endrin	Toxaphene
Pentachlorophenol	Heptachlor	Lindane	Methoxychlor
Dibromochloropropane	Oxamyl	Picloram	Simazine
Ethylene dibromide	Heptachlor epoxide	Polychlorinated Biphenyls	
Hexachlorobenzene	Hexachlorocyclo-pentadiene		

**Volatile Organic Contaminants**

The following listed regulated contaminants were tested with no detection in the samples. The date of the sampling was 3/31/03.

Benzene	Carbon tetrachloride	Monochlorobenzene
o-Dichlorobenzene	Para- Dichlorobenzene	1,2- Dichloroethane
1,1-Dichloroethylene	Cis-1,2- Dichloroethylene	1,2- Dichloroethylene
Dichloromethane	1,2-Dichloropropane	Ethylbenzene
Styrene	Tetrachloroethylene	1,2,4-Trichlorobenzene
1,1,1-Trichloroethane	1,1,2-Trichloroethane	Toluene
Trichloroethylene	Vinyl chloride	Xylenes (total)
Trans-1,2,Dichloroethylene		

**Haloacetic Acids (Disinfection By-Products)**

The following listed regulated contaminants were tested with no detection in the samples. The date of the sampling was 8/10/04.

Bromochloroacetic Acid	Dibromoacetic Acid	Dichloroacetic Acid
Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid

**Volatile Compounds (Disinfection By-Products)**

The following listed regulated disinfection by-products (trihalomethanes) were tested with the following results. The maximum contaminants level for all four trihalomethanes combined is 80 ppb. The combined tested result was 3.7 ppb. The date of the sampling was 8/10/04.

Bromodichloromethane (result 1.4 ppb)	Bromoform (result BDL)
Chloroform (result 1.2 ppb)	Dibromochloromethane (result 1.1 ppb)

As you can see by the tables, our system had no violations. We have much confidence in the fact that The Snake River Water District's drinking water meets or exceeds all Federal and State requirements. Through monitoring and testing various constituents are always detected. The EPA has determined that your water is safe at these levels.

The results of sampling for the inorganic contaminants for lead and copper at the water supply source are below detection levels. The test results reported in the table are for the 90<sup>th</sup> percentile of 5 samples taken at random customer taps.

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. 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 of infections. These people should seek advice about drinking water from their health care providers. More information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and microbiological contaminants, call the EPA safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water everyday at the MCL level of the contaminant for a lifetime to have a one-in-a million chance of having the described health effect.

Thank you for your interest.