



# Borough of Denver

June 14, 2011

Denver Borough Residents:

On August 19, 1998, the US Environmental Protection Agency (EPA) adopted the Consumer Confidence Report (CCR) regulations requiring owners of community water systems to distribute an annual CCR report containing information about what is in the water and the source(s) of the water. Enclosed please find a copy of Denver Borough's **Annual Drinking Water Quality Report**. This report is designed to inform Borough residents about the quality of water and services delivered every day. Denver Borough's public water system identification number (PWSID) is #7360017

Este informe contiene informacion muy importante sobre su agua de beber. Traduzcalo o hable con alguien que lo entienda bien. (This report contains very important information about your drinking water. Translate it, or speak to someone who understands it.)

The Borough's constant goal is to provide residents with a dependable supply of drinking water; to continue to improve the water treatment process; and to protect the Borough's water resources. The Borough's water system consists of four (4) wells and a water treatment plant. Three (3) of the wells are located outside of the Borough in sandstone aquifers. The fourth well is located in the Denver Heights Development. The Borough's water treatment plant is located at the intersection of North 8<sup>th</sup> Street and Main Street. Water is drawn from the Cocalico Creek across from the water treatment plant.

Denver Borough routinely monitors for contaminants in the drinking water according to Federal and State laws. The enclosed table indicates the results of the Borough's monitoring efforts for the period of January 1, 2010 through December 31, 2010. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than 1 year old. **As indicated in the table, the Borough's water system had no violations during 2010 and met and exceeded all federal and state requirements.**

Please note, all sources of drinking water are subject to potential contamination by constants that are naturally occurring or man made. Those contaminants can be microbes, organic or inorganic chemicals, or radioactive materials. 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

In order to ensure that water is safe to drink, EPA prescribes regulations which limit the amount of

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certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

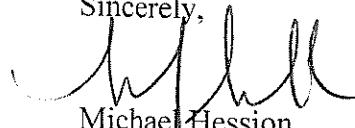
The sources of drinking water (both tap water and bottled water) includes rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick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

**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 guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at (800-426-4791).**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated service lines and home plumbing. Denver Borough is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in drinking water, information concerning testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Thank you for allowing the Borough to continue providing your family with clean, quality water this year. In order to maintain a dependable water supply, the Borough sometimes needs to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

If you have any questions about this report or your water utility, please do not hesitate to contact me at 336-2831. Any resident interested in learning more about the Borough's water system may attend the regularly scheduled monthly Borough Council meetings. These meetings are held on the second and last Monday of every month at 7:00 p.m. at the Denver Borough Municipal Building, 501 Main Street, Denver, PA, 17517.

Sincerely,  
  
Michael Hession  
Borough Manager

Enclosures

c: Borough Council

## TEST RESULTS

### Microbiological Contaminants

Contaminant (Unit of measurement)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
1. Total Coliform Bacteria	N	ND		0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
2. Fecal coliform and <i>E.coli</i>	N	ND		0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste
3. Turbidity (ntu) (b) (c)	N	ND	100%	N/a	TT	Soil runoff

### Radioactive Contaminants

Contaminant (Unit of measurement)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
5. Alpha emitters (pCi/l)	N	1.4 2003	NA	0	15	Erosion of natural deposits

### Inorganic Contaminants

Contaminant (Unit of measurement)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
9. Arsenic (ppb)	N	<0.003 2009	NA	0	10	Erosion of natural deposits; runoff from orchards; runoff glass and electronics production waste
10. Barium (mg/l)	N	<15 (mg/l) 2009	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits

### Lead and Copper Rule

14. Copper (ppm)	N	1.22 (ppm) 2010	None of the 20 samples we collected exceeded the action level.	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
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17. Lead (ppb)	N	<0.003 (ppb) 2010	None of the 20 samples we collected exceeded the action level.	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
19. Nitrate (as Nitrogen) (ppm)	N	3.9 2010	3.9	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Synthetic Organic Contaminants including Pesticides and Herbicides</b>						
Contaminant (Unit of measurement)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
29. Carbofuran (mg/l)	N	ND (mg/l) 2002	NA	4	4	Leaching of soil fumigant used on rice and alfalfa
33. Di(2-ethylhexyl) phthalate (mg/l)	N	0.3 (mg/l) 2002	NA	0	6	Discharge from rubber and chemical factories
<b>Disinfection Byproducts</b>						
Contaminant (unit of measurement)	Violation Y/N	Level detected	Range	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (ppb)	N	<2.0	<2.0	N/A	60	Byproduct of drinking water disinfection
Trihalomethanes (ppb)	N	9.9	6.9 – 9.9	N/A	100/80	Byproduct of drinking water disinfection
<b>Disinfectant Residuals</b>	Violation Y/N	Level detected	Range	MRDL	MRDLG	
Chlorine Residual (ppm)	N	1.27	0.29 to 1.27	4	4	Water additive used to control microbes

**Footnotes:**

(b) The lowest monthly percentage of samples meeting the turbidity limits specified in 141.73. For example: “In September, 100% of turbidity samples met the turbidity limits”

(c) Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

\*The Borough of Denver monitors sulfate in the drinking water. The EPA has established a secondary guideline of 250 mg/l for sulfate in drinking water. Sulfate levels in excess of this guideline can have a laxative effect. The level detected in the Borough’s drinking water in 2005 was 13.1 mg/l.

**Cryptosporidium:** The Borough began testing for Cryptosporidium in January of 2010. 12 samples were pulled from the Cocalico Creek (surface water), with one (1) sample testing positive. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions

to take to avoid infection. *Cryptosporidium* must be ingested to cause disease and it may be spread through means other than drinking water.

### Definitions

*Non-Detects (ND)* - laboratory analysis indicates that the contaminant is not present at a detectable level.

*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 one 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.

*Action Level* – (mandatory language) 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. MCL's are set at very stringent levels for health effects. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

*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.

*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.

*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 contamination.

*Nitrates* - As a precaution the Borough will notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply. 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.

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