Town of Elizabeth 2012 Drinking Water
Consumer Confidence Report (CCR) For Calendar Year 2011

Public Water System ID: CO0120010

Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact **Michael Gibbs** at **303-419-5631** with any questions about the Drinking Water Consumer Confidence Report or for public participation opportunities that may affect the water quality.

General Information

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 (1-800-426-4791) or by visiting http://water.epa.gov/drink/contaminants. 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 of infections. These people should seek advice about drinking water from their health care providers. For 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).

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, 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 stormwater 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 stormwater runoff, and residential uses.
•**Radioactive contaminants,** that can be naturally occurring or be the result of oil and gas production and mining activities.
•**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.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting 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 that must provide the same protection for public health.

Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

Our Water Source(s)

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 http://www.cdphe.state.co.us/wq/sw/swapreports/swapreports.html, clicking on **Elbert** County and selecting **120010; Elizabeth Town Of** or by contacting **Michael Gibbs** at **303-419-5631.** For general information about Source Water Assessment please visit http://www.cdphe.state.co.us/wq/sw/swaphom.html.
Potential sources of contamination in our source water area come from: Low intensity residential, agriculture, forest, septic systems and road miles.

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.

Please contact **Michael Gibbs** at **303-419-5631** to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Consumer Confidence Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Our Water Source(s)

Source	Source Type	Water Type	Location
ARAPAHOE WELL	Well	Groundwater	882 Pine Ridge St
NEW LOWER DAWSON WELL	Well	Groundwater	882 Pine Ridge St
UPPER DENVER WELL	Well	Groundwater	1392 Pine Ridge St

Terms and Abbreviations

• **Maximum Contaminant Level Goal (MCLG)** − The 'Goal' 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 Contaminant Level (MCL)** − The 'Maximum Allowed' 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.
• **Treatment Technique (TT)** − A treatment technique is a required process intended to reduce the level of a contaminant in drinking 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.
• **Average of Individual Samples (No Abbreviation)** − The typical value. Mathematically it is the sum of values divided by the number of samples.
• **Range of Individual Samples (No Abbreviation)** − The lowest value to the highest value.
• **Number of Samples (No Abbreviation)** − The number or count of values.
• **Gross Alpha, Including RA, Excluding RN & U (No Abbreviation)** − This is the gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium.
• **Variance and Exemptions (V/E)** − Department permission not to meet an MCL or a treatment technique under certain conditions.
• **Parts per million = Milligrams per liter (ppm = mg/L)** − One part per million corresponds to one minute in two years or a single penny in $10,000.
• **Parts per billion = Micrograms per liter (ppb = ug/L)** − One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
• **Parts per trillion = Nanograms per liter (ppt = 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 = Picograms per liter (ppq = 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.
• **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.
• **Not Applicable (N/A)** − Does Not Apply.
• **Violation (No Abbreviation)** − A failure to meet a Colorado Primary Drinking Water Regulation.
• **Formal Enforcement Action (No Abbreviation)** − An escalated action taken by the State (due to the number and/or severity of violations) to bring a non-compliant water system back into compliance by a certain time, with an enforceable consequence if the schedule is not met.

Detected Contaminant(s)

The Town Of Elizabeth routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2011 unless otherwise noted. The State of Colorado requires us to monitor 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. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

Note: Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section, that means that Town Of Elizabeth did not detect any contaminants in the last round of monitoring.

Lead and Copper Sampled in the Distribution System							
Contaminant Name	**Monitoring Period**	**90th Percentile**	**Number of Samples**	**Unit of Measure**	**Action Level**	**Sample Sites Above Action Level**	**Typical Sources**
COPPER	01/01/2008 to 12/31/2010	0.469	10	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits.
LEAD	01/01/2008 to 12/31/2010	3	10	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By Products (TTHMs, HAA5, and Chlorite) Sampled in the Distribution System									
Contaminant Name	**Year**	**Average of Individual Samples**	**Range of Individual Samples (Lowest - Highest)**	**Number of Samples**	**Unit of Measure**	**MCL**	**MCLG**	**MCL Violation?**	**Typical Sources**
TOTAL HALOACETIC ACIDS (HAA5)	2009	2.87	2.87 - 2.87	1	ppb	60	N/A	No	By-product of drinking water disinfection.
TTHM	2009	7.34	7.34 - 7.34	1	ppb	80	N/A	No	Byproduct of drinking water disinfection.

Regulated Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	**Year**	**Average of Individual Samples**	**Range of Individual Samples (Lowest - Highest)**	**Number of Samples**	**Unit of Measure**	**MCL**	**MCLG**	**MCL Violation?**	**Typical Sources**
ANTIMONY, TOTAL	2011	0.05	0.05 - 0.05	1	ppb	6	6	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
ARSENIC	2011	6.67	6.67 - 6.67	1	ppb	10	0	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
BARIUM	2011	0.033	0.033 - 0.033	1	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
CHROMIUM	2011	0.42	0.42 - 0.42	1	ppb	100	100	No	Discharge from steel and pulp mills; Erosion of natural deposits.
FLUORIDE	2011	0.46	0.46 - 0.46	1	ppm	4	4	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
NITRATE	2011	0.76	0.76 - 0.76	1	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
SELENIUM	2011	3	3 - 3	1	ppb	50	50	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radionuclides Sampled at the Entry Point to the Distribution System									
Contaminant Name	**Year**	**Average of Individual Samples**	**Range of Individual Samples (Lowest - Highest)**	**Number of Samples**	**Unit of Measure**	**MCL**	**MCLG**	**MCL Violation?**	**Typical Sources**
COMBINED RADIUM (-226 & -228)	2011	0.86	0.44 - 1.07	3	pCi/L	5	0	No	Erosion of natural deposits.
COMBINED URANIUM	2011	1.515	1.33 - 1.7	2	ppb	30	0	No	Erosion of natural deposits.
GROSS ALPHA, EXCL. RADON & U	2011	1.75	0 - 3.5	2	pCi/L	15	0	No	Erosion of natural deposits.
GROSS BETA PARTICLE ACTIVITY*	2011	5.667	3.2 - 6.9	3	pCi/L*	50	0	No	Decay of natural and man-made deposits.

*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern for Gross Beta Particle Activity.

Secondary Contaminants**						
Contaminant Name	**Year**	**Average of Individual Samples**	**Range of Individual Samples (Lowest - Highest)**	**Number of Samples**	**Unit of Measure**	**Secondary Standard**
NICKEL	2011	0.001	0.001 - 0.001	1	ppm	0.1
SODIUM	2011	16.7	16.7 - 16.7	1	ppm	N/A

**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.

Additional Health Information	
Analyte Name	**Potential Health Effects from Long-Term Exposure Above the MCL (unless specified as short-term)**
ARSENIC	While your drinking water meets the EPA's standard for arsenic, it does contain low levels of arsenic. The EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Violation(s) and Formal Enforcement Action(s)

Violations

No Violations to Report

Formal Enforcement Actions

No Formal Enforcement Actions to Report