

City of Arcadia
2010 Annual Drinking Water Quality Report
PWS # 6140314

The City of Arcadia is pleased to provide you (our water customer) with this year's Annual Water Quality Report, which consists of a narrative and Test Results Tables, to assist you in being informed about the water you drink and possible health effects of contaminants that occur naturally in water.

Our goal is to provide to you a safe and dependable supply of drinking water. Our water source is ground water from wells that draw from the Intermediate Aquifer. The primary treatment of this water source includes stabilization, disinfection, and filtration. In 2009 the Florida Department of Environmental Protection performed a Source Water Assessment on our system. These assessments were conducted to provide information about any potential sources of contamination in the vicinity of our wells. Underground petroleum storage tanks were identified as a potential source of contamination to the City's wells. The susceptibility level is considered to be moderate. While normally the presence of petroleum storage tanks in proximity to our wells would be cause for concern, we find some comfort in knowing that the State of Florida has a very active petroleum contamination prevention and cleanup program and some of the most stringent rules in the country. More information on the assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

If you have any questions about this report, or concerning the City's water utility, please contact Mr. A.J. Berndt at the City of Arcadia Water Treatment Plant at (863)-494-1626. We encourage you to be informed about your water. The City of Arcadia routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2010. Data obtained before January 1, 2010, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

In the Test Results Tables, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

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.

Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum residual disinfectant level or 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 or 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.

Parts per million (ppm) or Milligrams per liter (mg/l): one part by weight of analyte to 1 million parts by weight of the water sample.

Parts per billion (ppb) or Micrograms per liter (µg/l): one part by weight of analyte to 1 billion parts by weight of the water sample.

Picocurie per liter (pCi/L): measure of the radioactivity in water.

Microbiological Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage/Number	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (positive samples)	Monthly 2010	N	1	0	Presence of coliform bacteria in >1 sample collected during a month.	Naturally present in the environment

Radiological Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	Quarterly 07	N	5	3.6-7.7	0	15	Erosion of natural deposits
Radium 226 and 228 (pCi/L)	Quarterly 07	N	2.25	1.4-4	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	1/08	N	.012	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (as Nitrogen) (ppm)	2/09	N	0.16	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	3/10	N	0.12	NA	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	1/08	N	29.5	NA	NA	160	Salt water intrusion, leaching from soil
Fluoride (ppm)	1/09	N	1.98	NA	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Lead and Copper (Tap Water)							
Copper (tap water) (ppm)	10/09	N	0.05	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	10/09	N	2	1	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Stage 1 Disinfectants and Disinfection By-Products

For chloramines, the level detected is the the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. For haloacetic acids or TTHM, the level detected is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations.

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chloramine (ppm)	Monthly 2010	N	2.89	1.98-3.03	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	8/10	N	25.29	NA	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	8/10	N	50.29	NA	NA	MCL = 80	By-product of drinking water disinfection

SECONDARY CONTAMINANTS TABLE

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Result	Range of Results	MCL	Likely Source of Contamination
Fluoride (ppm)	Quarterly 2010	Y	2.06	1.82-2.06	2	Erosion of natural deposits; water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm; discharge from fertilizer and aluminum factories

Fluoride: Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

The contaminants listed in Test Results Table Number 1 are considered primary drinking water standards. Primary standards protect public health by limiting the levels of contaminants in drinking water. The contaminant listed in Test Results Table Number 2 is considered a secondary drinking water standard. Secondary standards are guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. Currently water systems are not required to comply with secondary MCL standards by the Environmental Protection Agency (EPA), however, the State of Florida does require compliance.

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:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) 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.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- (D) 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.
- (E) 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, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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.

Some individuals 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 before they erupt from the gums.

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 with service lines and home plumbing. The City of Arcadia 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 can 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 your water, you may wish to have your water tested. Information on lead in drinking water, 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>.

The City of Arcadia Water Treatment Plant staff is committed to improving the water treatment process and in serving to protect your health. If you have any questions or concerns about the information provided, please feel free to call any of the numbers listed or to log on to the internet at www.epa.gov/safewater/mcl.html.

**CITY OF ARCADIA WATER CUSTOMERS
IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

Elevated Fluoride Levels Detected

This is an annual alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) or 2 parts per million (ppm) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). During calendar year 2010 the City of Arcadia Water Treatment plant conducted quarterly tests on distribution water samples and detected a range of fluoride from 1.82 to 2.06 mg/l or ppm with the average being 1.95 mg/l or ppm.

Dental Fluorosis in its moderate or severe forms, may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/l or 4 ppm of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l or 4ppm fluoride, but we are required to notify you when we discover that the fluoride levels in your drinking water exceed 2mg/l or 2 ppm because of this cosmetic dental problem.

For more information, please call AJ Berndt at the City of Arcadia Water Plant 863-494-1626. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home treatment units, you may call NSF International at 1-877-867-3435.

Please share this information with all other people who drink this water, especially those who may have not received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the City of Arcadia Water Treatment Plant.

State Water System ID# 6140314

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The language and information contained in this notice is as directed by the Florida Department of Environmental Regulation.

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