2008 Water Quality

Consumer Confidence Report

Charles County Gardens 008-0008

Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Charles County Gardens vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

The water provided to you is taken from the Magothy Aquifer, a confined aquifer. A "confined aquifer" is one whose water is separated from the surface water table by an impermeable layer of rock or clay and is therefore not under the direct influence of pollutants that might be contained in surface water sources, such as streams or rivers. Water from a confined aquifer tends to be harder (i.e., have a greater mineral content) because minerals dissolve into the water as it filters through the subsurface layers of rock, sand, and limestone. In fact, it is this natural filtering process which yields the clean, contaminant-free water we are able to provide to you. In contrast, most surface water sources (rivers, streams, and reservoirs) require processing in a treatment plant to yield the same quality water we provide to you naturally.

Source water assessment and its availability

Source water Assessment was conducted by the Maryland Department of the Environment's Water Supply Program. It is available through the water supply program by calling 1 (800) 633-6101.

Why are there contaminants in my drinking water?

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 water poses a health

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risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (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. 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, which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Lead Statement

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. Charles County Gardens 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 drinking 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 EPA Safe Drinking Water Hotline at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

How can I get Involved?

The most important impact the consumer can have on the water supply is to recognize the finite nature of our water supply and to practice water conservation principles.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Tap water samples were collected from homes throughout the service area and tested for lead and copper				
Contaminant	**MCL**	**Detected Level**	**MCGL**	**Source of Contamination**
Haloacetic Acids ug/l	60	0	60	By-product of drinking water chlorination
Trihalomethanes ug/l	80	0	80	By-product of drinking water disenfection
Copper, mg/l	1.3	0.15	1.3	leaching from plumbing
Lead, mg/l	0.015	0.008	0.015	leaching from plumbing

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Regulated Contaminants	**MCL**	**Detected Level**	**MCGL**	**Source of Contamination**
Nitrate, mg/l	10	<1	0	runoff from fertilizer
Gross Alpha, pCi/l	15	4	0	erosion of natural deposits
Gross Beta, pCi/l	*50	13	0	decay of natural deposits
Fluoride, mg/l	4	0.2	4	erosion of natural deposits
Barium, mg/l	2	<0.1	2	erosion of natural deposits
Nickel, mg/l	N/A	<0.05	N/A	erosion of natural deposits
Arsenic, mg/l	0.01	<0.001	0	erosion of natural deposits
Selenium, mg/l	0.05	<.025	0.05	erosion of natural deposits

Unregulated Contaminants	**MCL**	**Detected Level**	**MCGL**	**Source of Contamination**
Sodium, mg/l	N/A	74	N/A	naturally present in nature
Bromodichloromethane, ug/l	5	<0.5	0	chemical manufacturers
Dibromochloromethane, ug/l	5	<0.5	0	chemical manufacturers
Radon, pCi/l	N/A	N/A	N/A	naturally present in nature
Iron, mg/l	N/A	0.85	N/A	naturally present in water or leaching from pipe
Chloroform, ug/l	N/A	<0.5	N/A	naturally present in nature

Definitions:

(1) ***Maximum Contaminant Level*** (MCL): the highest level of a contaminant allowed to be present in drinking water

(2) ***Maximum Contaminant Level Goal*** (MCLG): the level of contaminant in drinking water below which, there is no known or expected health risk

(3) ***Action Level***: the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which the system must follow

(4) ***mg/l***: milligrams per liter, or parts per million

(5) ***ug/l***: micrograms per liter, or parts per billion

(6) ***mrem/yr***: millirems per year (a measure of radiation absorbed by the body)

(7) ***pCi/l***: picocuries per liter (a measure of radiation)

(8) *50 EPA considers 50 pCi/yr a level of concern for Beta particles

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WATER SUPPLY
PROGRAM

Charles County Gardens

Executive Summary
Charles County Gardens
008-0008

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted Source Water Assessments for fifty-seven community water systems in Charles County, including the Charles County Gardens water system. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The water supply sources of the community systems in Charles County are naturally protected confined aquifers of the Atlantic Coastal Plain physiographic province. The Charles County Gardens water system is currently using two wells that pump water from the Magothy Formation. The Source Water Assessment area was delineated by the WSP using U.S. EPS approved methods specifically designed for water supplies in confined aquifers.

Potential sources of contamination were researched and identified within the assessment area from field inspections, contaminant and well inventory databases, and land use maps. Well information and water quality data were also reviewed. A map showing the Source Water Assessment areas are available on request.

The susceptibility analysis is based on a review of the existing water quality data for each water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and aquifer characteristics. It was determined that the Charles County Gardens water supply is not susceptible to contaminants originating at the land surface due to the protected nature of confined aquifers. The susceptibility of the water supply to radon, naturally occurring element, will depend upon the final MCL that is adopted for this contaminant

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