CRYPTOSPORIDIUM

Cryptospordium is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. If it is ever detected, *Cryptospordium* is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptospordium and other microbial contaminants are available from USEPA's Safe Drinking Water hotline at (800) 426-4791 between 9 a.m. and 5 p.m. Eastern Time (6 a.m. to 2 p.m. in California).

DISINFECTION AND DISINFECTION BYPRODUCTS

Disinfection of drinking water was one of the major public health advances in the 20th century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of our drinking water treatment today.

Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source of supply (groundwater well). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This "residual" chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home.

However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the USEPA to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average. Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water. Your drinking water complies with the Stage 1 Disinfectants / Disinfection Byproducts Rule.

RADON ADVISORY

Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Breathing air containing radon can lead to lung cancer. Drinking water containing radon could increase the risk of stomach cancer. Compared to radon entering the home through soil, radon entering your home through your tap water is a small source of radon in indoor air. The USEPA Action Level for radon in indoor air is 4.0 picocuries per liter. Radon from your tap water contributes no more than 0.1 picocurie per liter in your indoor air. If you are concerned about radon in your home, test the air in your home. Fix your home if the level of radon is 4 picocuries per liter of air or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call the State radon program (1-800-745-7236), the EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-SOS-RADON).

WANT ADDITIONAL INFORMATION?

There's a wealth of information on the Internet about Drinking Water Quality and water issues in general. Some good sites – both local and national – to begin your own research are:

City of Ceres: **www.ci.ceres.ca.us**

Water Education Foundation: **www.watereducation.org**

California Department of Public Health, Division of Drinking Water and Environmental Management: **www.cdph.ca.gov/certlic/drinkingwater**

U.S. Environmental Protection Agency: **www.epa.gov/safewater/**

California Department of Water Resources: **www.water.ca.gov**

Water Conservation Tips: **www.bewaterwise.com**

www.wateruseitwisely.co

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This report contains important information about your drinking water.

Translate it, or speak with someone who understands it.

ال. شرب م ياه ب لاكم عن هفة معلومات ي ةضمن ال ةقرير هذا
ي فهم. شخص مع ال تحدث أو ,ةرجمه ته
Arabic

この報告はあなたの飲用水についての重要な情報を含んでいます。
それを翻訳するか、あるいはそれを理解している誰かと話してください。
Japanese

Este informe contiene información importante sobre su agua potable.
Tradúzcalo, o hable con alguien que comprende.
Spanish

这份报告包含有关你的喝酒水的重要信息。
翻译它，或跟理解它的某人讲话。
Chinese

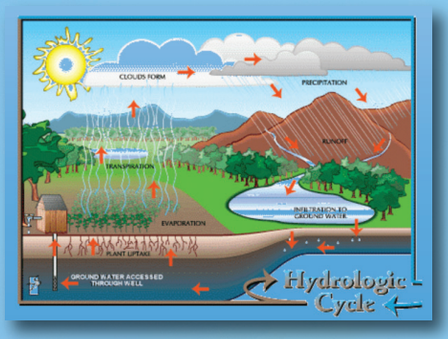
이 보고서에는 에 대한 중요한 정보를 물었습니다.
번역하거나 다른 사람과 이야기를 이해하고 이었습니다.
Korean

يو د أ شام يذ ي آب ذر ب لر ي مهم اطلاعاتي حاو گ زارش ني ا
ي. ا شد ف يم قا ل ك س ي ا زدن حرف ي ا, ا ست ة رجمه
Persian

2011

CONSUMER CONFIDENCE REPORT

Where does our water come from?



- The water supplied to the City of Ceres residents is comprised solely of groundwater.
- In 2011, the City's 14 active wells pumped a total of 2.7 billion gallons of water.
- The City's water distribution system contains more than 154 miles of pipeline.
- Groundwater is an abundant natural resource.
- Many bottled waters come from groundwater reserves.
- Groundwater is the water that soaks into the soils from rain or other precipitation and moves downward to fill cracks and other openings in beds of rocks and sand.
- Of all the fresh water in the world (excluding polar ice caps), 90% is groundwater.
- Most surface water bodies such as lakes, rivers, and streams are connected to ground water. So, whether your water comes from ground water or surface water…

conservation matters!

20x2020 WATER CONSERVATION PLAN

Govenor Schwarzenegger's 20X2020 Water Conservation Plan was approved February 2010. The legislation is one approach for meeting the governor's conservation goal of 20% reduction in statewide per capita water use by 2020 at the local level.

The 20x2020 Water Conservation Plan sets forth a statewide road map to maximize the state's urban water efficiency and conservation opportunities between 2009 and 2020, and beyond. It aims to set in motion a range of activities designed to achieve the 20 percent per capita reduction in urban water demand by 2020. These activities include improving an understanding of the variation in water use across California, promoting legislative initiatives that incentivize water agencies to promote water conservation, and creating evaluation and enforcement mechanisms to assure regional and statewide goals are met. The 20x2020 Plan discusses these many activities in detail.

Click here to view the entire plan: **http://www.waterboards.ca.gov/water_issues/hot_topics/20x2020/docs/20x2020plan.pdf**

Water Quality is Our Top Priority

The City of Ceres is pleased to distribute this report to its water customers. It provides important information about where your water comes from and the work we perform each day to assure the water delivered to your tap is safe to drink. It also provides data about what is in your water and how water quality tests on your drinking water compare to federal and state drinking water standards during calendar year 2011.

USEPA and the California Department of Public Health (CDPH) are the agencies responsible for establishing drinking water quality standards. To ensure that your tap water is safe to drink, USEPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The federal Food and Drug Administration (FDA) sets regulations for bottled water.

The City of Ceres Water Utilities Division vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies. In accordance with the SDWA, the City monitors over 100 compounds in your water supply. This report includes only the compounds actually detected in the water.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people 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. USEPA/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 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 with service lines and home plumbing.

City of Ceres 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.**

Nitrate

In 2011, the typical nitrate level found in the City water supply was 23.91 milligrams per liter. Nitrate in drinking water at levels above 45 mg/L is a health risk for infants less than six months of age. High nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should seek advice from your health care provider. Please note that the confirmed highest nitrate level found in the City water supply in 2011 was 34.0 mg/L.

Arsenic

While your drinking water meets the current EPA standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency 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.

The USEPA lowered the Maximum Contaminant Level (MCL) for arsenic to 10 parts per billion, ppb, effective in 2006. The Department may conclude that the allowable arsenic level should be even lower.

Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.

Lead and Copper Testing Results

Since 1993, the City has been required to sample tap water from some older homes every three years. This sampling requires the homeowners (all volunteers) to take a sample of their tap water first thing in the morning before any other use. The samples are collected and analyzed for lead and copper.

Lead and copper are rarely found in source water, but can enter tap water through corrosion of plumbing materials. Some older homes have lead and copper pipes, fixtures and solder. All water is corrosive to metal plumbing materials to some degree, resulting in the leaching of lead and copper into the water. Elevated levels of copper and lead can result in health problems.

In 2011, the drinking water in 31 homes throughout the service area was tested for lead and copper contamination.

The results of the 2011 testing for Lead and Copper are as follows:

Compound	Limit	90th Percentile
Lead	15 µg/l	.18 µg/l
Copper	1300 µg/l	230 µg/l

What are Water Quality Standards?

Drinking water standards established by USEPA and CDPH set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report show the following types of water quality standards:

- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.
- **Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- **Secondary MCLs** are set to protect the odor, taste, and appearance of drinking water.
- **Primary Drinking Water Standard:** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

How are Contaminants Measured?

Water is sampled and tested throughout the year.
Contaminants are measured in:

- parts per million (ppm) or milligrams per liter (mg/l)
- parts per billion (ppb) or micrograms per liter (µg/l)
- parts per trillion (ppt) or nanograms per liter (ng/l)

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and CDPH have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water managements practices. The chart in this report includes three types of water quality goals:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's are set by USEPA.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by USEPA.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

What's In Our Water?

The sources of drinking water in the United States (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels through the ground or over the surface of the land, 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that 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, that 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 that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- Radioactive contaminants, that 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 U.S. Environmental Protection Agency (USEPA) and the State Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

2010 City of Ceres Water Quality Test Results

Chemical	MCL (Legal Limit)	PHG (MCLG)	Average Level Detected	Range of Results	Date Sampled	Violation	Typical Source of Contaminant
Microbiologicals							
Total Coliform Bacteria	5.0%	(0)	0	0 to 4%	2011	No	Naturally present in the environment
Radiologicals							
Gross Alpha(pCi/L)	15	(0)	4.25	0 to 4.25	2011	No	Erosion of natural deposits
Uranium (pCi/L)	20	(0)	6.67	1.7 to 20	2010/2011	No	Decay of man-made or natural deposits
Inorganic Chemicals							
Arsenic (ug/L)	10	4	5.92	2.7 to 10	2010/2011	No	Erosion of natural deposits
Barium (BA) (ug/L)	1000.00	2,000.00	128.31	34 to 290	2010/2011	No	Erosion of natural deposits
Flouride (mg/l)	2.0	1	0.14	0.1 to 0.2	2010/2011	No	Erosion of natural deposits
Nitrate as NO^3 (mg/l)	45	45	23.91	0.10 to 34	2011	No	Agriculture runoff and sewage
Selenium (ug/L)	50	30,000	1.4	ND to 5.10	2010/2011	No	Agriculture runoff and sewage
Organic Chemicals							
Dibromochloropropane (DBCP) (ug/L)	0.20	1.7	N/D	N/D to 0.02	2010/2011	No	Soil Runoff
Tetrachlororethene (PCE) (ug/L)	5.00	.06	0.08	N/D to 0.99	2010/2011	No	Discharge from factories, dry cleaners, auto shops
Secondary Regulated Chemicals							
Chloride (mg/L)	500	n/a	130.46	12 to 360	2010/2011	No	Runoff/leaching of natural deposits
Color (color units)	15	n/a	1	1	2010/2011	No	Naturally-occurring organic materials
Manganese (µg/L)	50	n/a	6.78	ND to 51	2010/2011	No	Leaching from natural deposits
Odor (odor units)	3	n/a	0.08	ND to 1	2010/2011	No	Naturally-occurring organic materials
Specific Conductance (µmho/cm)	1,600	n/a	753.69	411 to 1380	2010/2011	No	Substances that form ions in water
Sulfate (mg/L)	500	n/a	13.47	4.60 to 40	2010/2011	No	Runoff/leaching from natural deposits
Total Dissolved Solids (mg/L)	1,000	n/a	531.54	290 to 1300	2010/2011	No	Runoff/leaching from natural deposits
Turbidity (NTU Units)	5	n/a	0.15	0.10 to 0.27	2010/2011	No	Soil Runoff
PH (PH Units)	5.0	n/a	7.98	7.56 to 8.24	2010/2011	No	Physical measure of water acidity
Unregulated Chemicals							
Total Alkalinity as COC3 (mg/l)	n/a	n/a	161.54	110 to 250	2010/2011	n/a	Runoff/leaching from natural deposits
Hardness as $CaCO^3$ (mg/L)	n/a	n/a	178.92	51 to 400	2010/2011	n/a	Runoff/leaching from natural deposits
Sodium (mg/l)	n/a	n/a	90.50	8.50 to 170	2010/2011	n/a	Runoff/leaching from natural deposits
Disinfection Byproducts							
Total Trihalomethanes (ug/L)	80	n/a	3.7	0 to 6.60	2011	No	By-product of water disinfection
Haloacetic Acids (ug/L)	60	n/a	0	ND	2011	No	By-product of water disinfection
Disinfection							
Chlorine Residual	4.0	4.0	.42	0 to 1.5	2011	No	Used to disinfect drinking water

Questions about your water? Contact us for answers.

For information or concerns about this report, or your water quality in general, please contact Jeremy Damas at (209) 538-5797, or send email to Jeremy.damas@ci.ceres.ca.us. You may also address your concerns at the regularly scheduled City Council Meetings held at City Council Chambers at 2701 Fourth Street, Ceres. City Council meeting are held at 7:00 p.m. on the second and fourth Monday of each month (unless the Monday is a holiday, then the meeting will be held on Tuesday). Please feel free to participate in these meetings. The City firmly believes in the public's right to know as much as possible about the quality of their drinking water and the health of their watershed. Your input and concerns are very important to us.

For more information about the health effects of the listed contaminants in the following tables, call the U.S. Environmental Protection Agency hotline at (800) 426-4791.

Starting 2012, the City began metering water services as part of a State mandate. The use of meters will help make consumers aware of their water usage, which will help conserve water. You can now view your water usage online by signing up for the City of Ceres water portal at http://meterportal.ci.ceres.ca.us/

A Reminder To Use Water Wisely

This year's Annual Water Quality Report cover is a reminder to the City's water customers of the need to conserve water and to always use water wisely.

One of the most significant areas of water use for most homes and businesses is water used outside for landscape irrigation. Landscape irrigation represents approximately 30 percent of your annual water demand, increasing to over 50 percent of the total water demand during the hot summer months.

There are many simple and cost-effective measures that City water customers can take to help reduce their outside irrigation water use. Turn your landscape irrigation controller off during cold and rainy winter months. Keeping turf grass at a height between 2 to 3 inches tall helps lower evaporation and promotes lawn root growth. Turf grasses do fine when watered every second or third day, rather than every day. Water your garden between the hours of 10:00 p.m. and 6:00 a.m. except Mondays. Replacing damaged, bent and poorly spraying sprinkler valves, heads, and drip irrigation emitters can help. In addition, consider replacing some of your turf areas with drought-tolerant plants. Recent designs of spray sprinkler heads have also made these much more efficient and can help deliver water to your landscaping without overspray, misting, etc. A small investment in changing the high water emitting spray heads or bubblers in plant and shrub areas with an efficient drip irrigation system could also save water and deliver water only to the plants' roots. Utilizing mulch and bark around plants, shrubs and trees can also help by reducing evaporation of water, mitigate weed growth, and result in healthier plants. More advanced irrigation controllers are now equipped with moisture sensor modules to help adjust the amount and duration of water being applied to plants and turf. Knowing how to operate an irrigation controller and effectively maintaining your sprinkler system can make a big difference in your outdoor water use and greatly improve your water conservation results.

To learn more water conservation tips and to tap into more water conservation information to reduce water use both inside and outside your home or business, please visit the City's website at www.ci.ceres.ca.us