

Protecting our watersheds

Keeping our lakes and rivers clean is essential to ensuring clean sources of drinking water for CPW and other water utilities.

To protect the quality of South Carolina's water resources, DHEC has compiled a list of the *potential* sources of contamination for each watershed in the state, including the Saluda-Edisto and Catawba River basins, where CPW draws water for treatment. DHEC's report identifies more than 450 entities, including gas stations, industries, farms, etc., in CPW's watershed that could *potentially* cause contamination of the watershed.

DHEC, as well as other regulatory agencies, routinely monitor the watershed, and CPW monitors its source water prior to treatment. For more information about the Source Water Protection program, please visit DHEC's website at www.scdhec.gov.

Improving our environment

Preventing pollution and working to improve our environment is an important part of CPW's mission. CPW was the first water or wastewater utility in the nation to earn certification from the International Standards Organization (ISO) under ISO 14001, the standard for environmental management. That certification requires a commitment to continually improving the environment, which CPW does by identifying our environmental impacts and developing plans to eliminate or reduce those impacts.

What's in CPW water?

In 2004, CPW conducted more than 43,000 tests for some 630 possible compounds in our treated water. Some are naturally occurring, such as minerals and plant matter. Others are man-made compounds that may enter our source water through runoff.

While the water treatment process removes many of these compounds, it is impossible to remove all compounds from the water. Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some naturally occurring or man-made compounds. This does not necessarily mean the water poses a health risk, as some compounds may be present in extremely small quantities, such as parts per billion or trillion—levels undetectable except by advanced laboratory equipment.

The few compounds found in CPW water were all at safe levels (in compliance with state and federal regulations) and are listed in the table in the foldout of this report.

You can learn more about the potential health effects of compounds found in drinking water by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

About this report

Do you know where your water comes from, how it's treated, or how safe it is to drink? To help inform the public about drinking water quality, state and federal regulations require all water utilities to produce an annual water quality report. This report summarizes sampling results of CPW's drinking water for the year 2004, and shows that CPW met or exceeded all water quality standards. This report is available online at www.charlestoncpw.com and you can request additional copies by calling (843) 727-6800.

About CPW

The Commissioners of Public Works is a publicly owned water and wastewater utility. We provide safe, clean drinking water to more than 400,000 people in parts of Charleston, Berkeley, and Dorchester Counties of South Carolina.

In addition to 96,000 direct water accounts, CPW also wholesales water to Mt. Pleasant Waterworks, the Town of Sullivan's Island, Isle of Palms Water and Sewer Commission, Town of Folly Beach, City of Lincolville, St. John's Water Company, Dorchester County Public Works, and Dorchester County Water Authority.

Where your water comes from

CPW water is treated at the Hanahan Water Treatment Plant, which uses surface water from the Edisto River and the headwaters of the Cooper River. CPW is a member of the Partnership for Safe Water, and has won numerous awards for excellence in water treatment.

The facts about LEAD

Lead is a soft, malleable metal that was used in a variety of products—including plumbing materials and water pipes—before its health effects were known. Lead poisoning is most commonly caused by exposure to dust, dirt, or paint chips containing lead, but prolonged exposure to high levels of lead in drinking water can also cause health problems.

Lead does *not* occur naturally in drinking water and is *not* a result of the treatment process. It leaches into water from pipes, solder, or plumbing fixtures that contain lead. CPW has replaced the majority of lead service lines, but some homes may still have lead plumbing, and even new plumbing fixtures may legally contain up to 9% lead.

The EPA began regulating lead levels in drinking water in 1992 with the Lead and Copper Rule, which requires water utilities to adjust their treatment process to reduce the corrosiveness of water. CPW does this by adding orthophosphate to the water, a compound that coats the inside of pipes and prevents lead from leaching into the water. The Lead and Copper Rule requires utilities to keep lead levels below 15 parts per billion (ppb). CPW's water is well below this limit at 4 ppb. If your home has lead plumbing, here are some steps you can take to further protect yourself:

-Let the cold water faucet run before using water. This will flush out water that's been standing in your pipes.

-Always use cold water for drinking or cooking. Lead leaches more easily into hot water.

-Call us at 727-6800 and ask for a free lead test.

Contact CPW

For more information about this report, contact CPW's Customer Service Department at (843) 727-6800 from 8:00 am to 5:00 pm Monday through Friday. We also have information available on our web site at www.charlestoncpw.com.

Office locations

Main Office
103 St Philip Street, Downtown Charleston

North Area branch office
6296 Rivers Avenue, North Charleston

Public Meetings

CPW's Board of Commissioners meets monthly. The meetings are open to the public and are typically held the fourth Tuesday of every month at 9 a.m. at our main office, 103 St Philip Street. Call (843) 727-6856 for more information.

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.



Commissioners of Public Works
of the City of Charleston, SC

2004 Water Quality Report

Commissioners of Public Works
of the City of Charleston, SC

Important information about
Your Drinking Water

2004 Water Quality Sampling Results

	Parameter	How it's measured	Highest level detected in CPW water	Range or other comments	Maximum Contaminant Level (MCL)	Date	Maximum Contaminant Level Goal (MCLG)	Possible sources in water
Regulated	Total Coliform Bacteria	% positive samples	1.7% highest level in any monthly sample	0% to 1.7 %	presence of coliform bacteria in less than 5% of monthly samples	2004	0%	naturally present in the environment (all repeat samples were satisfactory)
	Turbidity (cloudiness)	NTU	0.19	100% lowest monthly% of samples meeting limits	TT	2004	NA	soil runoff
	Copper	parts per million	0.05	no samples exceeded the action level	AL=1.3	2003	1.3	corrosion of household plumbing materials
	Lead	parts per billion	4	no samples exceeded the action level	AL= 15	2003	0	corrosion of household plumbing materials
	Nitrate/Nitrogen	parts per million	0.03	NA	10	2004	10	runoff from fertilizers
	Fluoride	parts per million	0.75	NA	4	2004	4	additive to reduce tooth decay
	Total Trihalomethanes	parts per billion	RAA: 48	11 to 75	80	2004	NA	byproduct of water disinfection process
	Total Haloacetic acids	parts per billion	RAA: 37	8 - 59	60	2004	NA	byproduct of water disinfection process
	Total Organic Carbon (TOC)	parts per million	RAA: ratio 1.35	2.0 to 4.1	TT	2004	NA	naturally present in the environment
	Chlorine Dioxide	parts per billion	100	<100 to 100	800	2004	800	byproduct of water disinfection process
	Chloramine Residual	parts per million	RAA: 2.5	2.0 to 2.8	MRDL= 4	2004	MRDLG = 4	water additive used to control microbes
	Chlorite	parts per million	0.83	0.33 - 0.83	1.0	2004	0.8	byproduct of water disinfection process
Unregulated	Sodium	parts per million	18	18	none	2003	none	naturally occurring and/or byproduct of treatment
	<i>Giardia</i> in River Water	per liter	0.1	0.0 to 0.1	none	2004	none	human and animal sources
	<i>Cryptosporidium</i> in river water	per liter	0.1	0.0 to 0.1	none	2004	none	human and animal sources

Abbreviations

NTU = Nephelometric Turbidity Units PCU = platinum cobalt units ppm = parts per million (mg/l) ppb = parts per billion (ig/l) imhos/cm = micromhos/centimeter
 pCi/l = picocuries per liter C = centigrade RAA = running annual average

Other water sampling results

Parameter	CPW water average	Highest level allowed by EPA
Alkalinity	25 ppm	No Standard
Chloride	20 ppm	250
Color	4 PCU	15
Conductivity	204 umhos/cm	No Standard
Hardness	65 ppm	No Standard
Iron	0.11 ppm	1.3
Manganese	<0.05 ppm	0.05
Ortho-phosphate	1.3 ppm	No Standard
Silica	6.8 ppm	No Standard
Temperature	21 C	No Standard
Total Dissolved Solids (TDS)	118 ppm	500

Definitions

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 allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

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

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

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.

Frequently Asked Questions

Does CPW water contain fluoride?

Yes. CPW adds one milligram per liter of fluoride to treated water. This is the amount recommended by the American Dental Association to provide maximum protection against tooth decay.

What is hardness and how hard is my water?

Hardness is a measure of calcium and magnesium in a gallon of water. Hardness can affect how well soap will lather (hard water reduces lathering capability). CPW water has 65 milligrams of hardness (minerals) per liter of water, or in the unit of measurement used in dishwasher manuals, about 3.5 grains per gallon.

Is CPW water safe for use in aquariums?

No. CPW uses chloramine—a mixture of chlorine and ammonia—to disinfect drinking water, which is harmful to fish and other aquatic life. There are a number of products available at pet stores to remove chloramine from your fish tank.

What causes water to have a taste or odor?

There are a variety of factors that can impact the taste or smell of tap water but not change the quality of the water. In CPW's case, algae in the raw water that feeds into the treatment plant can give off harmless compounds during the treatment process that may cause the water to taste earthy or musty. In most cases, taste and odor are purely aesthetic concerns, and are not reliable indicators of water quality.

A message from the US Environmental Protection Agency...

The Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (DHEC) have implemented regulations to ensure that water sold by public water systems contains no harmful contaminants. CPW meets, and in many cases, exceeds the water quality standards set forth by these regulatory bodies. The Food and Drug Administration (FDA) regulations prescribe similar limits for compounds in bottled water. However, the US EPA requires utilities to include the following advisory statement:

"Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with HIV/AIDS or other immune system disorders, persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, some elderly and some infants can be particularly at risk from infections. These people should seek advice from their health care providers. EPA/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 (1-800-426-4791)."