

Where Does My Water Come From?

Water customers of the City of Crescent City are fortunate because we enjoy an abundant water supply from the Wild and Scenic Smith River

In 2008, over 795 million gallons (daily average of 2.18 mgd) was collected through our Ranney Collector, which is located about 2 miles up the Smith River from the Dr. Fine Bridge.



Water Treatment Process

Using natural filtration through the sand and gravel bed 30 feet below the river, water is collected from intake lines (or fingers) driven into the gravel bed. Water is pumped southward to the chemical facility off Kings Valley Road, where chlorine and fluoride are added to meet State standards. This is the extent of treatment.



After the chemical addition, the water enters the distribution system, consisting of booster pumps and storage tanks. The water is analyzed daily for: chlorine, fluoride, turbidity and acidity. In addition, weekly microbiological tests are analyzed from various locations throughout the system, to further ensure healthy, high quality standards at your tap.

For the sake of simplicity, the results reported to you the users, are only those which are most commonly of interest to the public. All testing results are available at City Hall upon request. All pollutants required to be tested have been tested for. All results were

below the California Department of Public Health's Maximum Contaminate Levels (MCL).

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. U.S. 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 Drinking Water Hotline (1-800-426-4791).

Continuing Our Commitment

The City of Crescent City is once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2008. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards.



Este informe contiene información muy importante sobre su agua potable. Tradú

We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water conservation and community education while continuing to serve the needs of all our water uses.

Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Eric Wier, Utilities Director at (707) 464-9506.

Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/waterhome) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the California Environmental Protection Agency has a Web site (www.epa.ca.us) that provides complete and current information on water issues in California, including valuable information about our watershed.

The information contained in this report is available on the City of Crescent City's website at www.crescentcity.org.



Contamination from Cross-Connections

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment, systems containing chemicals or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line. Contamination can also occur when the pressure in the drinking water line drops to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line.

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.



Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer.

Contact www.epa.gov/safewater/crossconnection.html for more information on cross-connection contamination. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

Substances that could be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) includes rivers, 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 substances resulting from the presence of animals or from human activity.

Substances 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, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from 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 may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Hotline at (800) 426-4791.

Naturally Occurring Bacteria

The simple fact is, bacteria and other microorganisms inhabit our world. They can be found all around us in our food; on our skin; in our bodies; and, in the air, soil and water. Some are harmful to us and some are not. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern because it indicates that the water may be contaminated with other organisms that can cause disease. Throughout the year, we tested hundreds of samples of coliform bacteria. In that time, none of the samples came back positive for the bacteria. Federal regulations now require that public water testing positive for coliform bacteria must be further analyzed for fecal coliform bacteria. Fecal coliforms are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for fecal coliforms to be present in water any concentration. Our tests indicate no fecal coliform is present in our water.

Sampling Results

During the past year we have taken hundreds of samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. All substances were under the Maximum Contaminant Level (MCL). The table below shows only those contaminants which are most commonly asked for. Test results for all of the samples taken are available at City Hall upon request.

REGULATED SUBSTANCES						
Substance (Unit of Measure)	# of samples collected	Level Detected (90 th %tile)	Sites Above			Typical Source of Contaminant
			AL	AL	PHG	
Lead (ppb)	20	3.8	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppb)	20	460	0	1300	170	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Substance (Unit of Measure)	Sample Date	Level Detected	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	05/01/01	2.0	None	None	Generally found in ground and surface water
Hardness (ppm)	05/01/01	37.6	None	None	Generally found in ground and surface water
Nitrate (as NO ³)	1/11/2007	.68	45 mg/L		Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Asbestos	12/12/1996	ND	7 MFL	7 MFL	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Iron	5/01/2001	0.000	0.3	N/A	Erosion of natural deposits
Manganese	5/01/2001	0.000	0.05	N/A	Erosion of natural deposits
Total Dissolved Solids	5/01/2001	73	1000	N/A	Erosion of natural deposits
Aluminum	4/24/2004	ND	1	0.6	Erosion of natural deposits

ROUTINE DAILY SAMPLING RESULTS					
Parameter	Units	Average	Range	MCL	
Fluoride	Mg/L	1.07	0.68-1.68	2	
Chlorine Residual	Mg/L	1.20	0.78-1.88	N/A	
PH	PH Units	7.5	7.2 - 8.4	N/A	
Turbidity	NTU	0.28	0.05 - 2.11	5.0	

Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL or 2 mg/l may get mottled teeth.

Table Definitions:

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. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (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.

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

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 the U.S. Environmental Protection Agency.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment techniques.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit
ppm: parts per million or milligrams per liter (mg/L)
ppb: parts per billion or micrograms per liter (ug/L)
ppt: parts per trillion or nanograms per liter (ng/L)
pCi/L: picocuries per liter (a measure of radiation)

City of Crescent City
377 J Street
Crescent City, CA 95531

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Crescent City Public Works Department
377 J Street, Crescent City, CA 95531
(707) 464-9506, fax (707) 465-4405
www.crescentcity.org