

# Castroville Community Services District

## 2012 Annual Water Quality Report



*We test the drinking water quality for many constituents as required by State and Federal Regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2012.*

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

### ANNUAL DRINKING WATER QUALITY REPORT

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our source water comes from 3 wells providing ground water from the 400 foot aquifer.

• A source water assessment was conducted for the CCSD System in December 2001 and can be viewed at the District Office

To learn more, we invite you to attend any of our regular scheduled Board meetings, held on the third Tuesday of each month at 4:00 pm at the District office.

### CONTAMINANTS IN DRINKING WATER

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

### INFORMATION

All 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.

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 before we treat it include:

- 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, 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, which 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 storm water 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, USEPA and the California Department of Health Services (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.

# WATER QUALITY DATA

Castroville Community Services District routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2012. We sample for over 108 contaminants but only those that show any detection are listed below. All detections were below regulatory actions levels.

**Table 1 - sampling results showing the detection of coliform bacteria**

Microbiological Contaminants	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or E. coli	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	0	Human and animal fecal waste

**Table 2 - sampling results showing the detection of Lead and copper**

Lead and Copper	No. of samples collected	90th percentile	No. Sites exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead (ppb)	20	ND	0	15	2	Corrosion of household plumbing; industrial manufacturers; erosion of natural deposits.
Copper (ppb)	20	0.308	0	1.3	1.3	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives.

**Table 3 - sampling results for sodium and hardness**

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG/ (MCLG)	Typical Source of Contaminant
Sodium (ppm)	Aug 2012	100	57-150	none	none	Generally found in ground and surface water
Hardness (ppm)	July 2010	292	185-496	none	none	Generally found in ground and surface water

**Table 4 - detection of contaminants with a Primary Drinking Water Standard**

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG/ (MCLG)	Typical Source of Contaminant
Nitrate (as NO <sub>3</sub> ), (ppm)	Aug 2012	2	0-3	45	45/(N/A)	Fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Gross Alpha, (pCi/L)	Aug 2006	0.54	0.000-0.577	2	N/A/(N/A)	Erosion of natural deposits
Aluminum, (ug/L)	July 2010	ND	ND	1000	N/A/(N/A)	Erosion of natural deposits; surface water treatment
Arsenic (ug/L)	July 2010	3.3	3-4	10	N/A (N/A)	Erosion of natural deposits
Fluoride (ppm)	July 2010	.21	.19-.22	2.0	N/A (N/A)	Erosion of natural deposits

**Table 5 - detection of contaminants with a Secondary Drinking Water Standard**

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG/ (MCLG)	Typical Source of Contaminant
Color, units	July 2010	ND	ND	15	N/A(N/A)	Naturally occurring organic materials
Chloride, (ppm)	Aug 2012	200	74-399	250	N/A/(N/A)	Runoff/leaching from natural deposits; seawater influence
Iron, (ppb)	July 2010	30	ND-75	.3	N/A/(N/A)	Leaching from natural deposits; industrial wastes
Sulfate, (ppm)	Aug 2012	26	14-33	250	N/A/(N/A)	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solid, (ppm)	July 2010	690	385-1,210	1000	N/A/(N/A)	Runoff/leaching
Odor, (TON)	July 2010	3.6	3-4	3	N/A (N/A)	Naturally occurring organic materials
Turbidity (NTU)	July 2010	.09	ND-.18	5	N/A (N/A)	Soil runoff
Specific Conductivity (ug/L)	Aug 2012	1,029	611-1,665	900	N/A (N/A)	Seawater influence

## USEFUL TERMS & DEFINITIONS

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

- ◆ **Non-Detects (ND)** - laboratory analysis indicates that the constituent is not present.
- ◆ **Parts per million (ppm) or Milligrams per liter (mg/l)** - one part per million corresponds to one minute in two years or a single penny in \$10,000
- ◆ **Parts per billion (ppb) or Micrograms per liter** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- ◆ **Parts per trillion (ppt) or Nanograms per liter (nanograms/l)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- ◆ **Parts per quadrillion (ppq) or Picograms per liter (picograms/l)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- ◆ **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- ◆ **Millirems per year (mrem/yr)** - measure of radiation absorbed by the body.
- ◆ **Million Fibers per Liter (MFL)** - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- ◆ **Nephelometric Turbidity Unit (NTU)** nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU's is just noticeable to the average person.
- ◆ **Regulatory 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 treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- ◆ **Maximum Contaminant Level** - The "Maximum Allowed" (MCL) is 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.
- ◆ **Maximum Contaminant Level Goal** - The "Goal" (MCLG) is 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.
- ◆ **Public Health Goal (PHG)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. PHG's are set by the California Environmental Protection Agency.