

# 2009 Water Quality Report

## Cox Bar School

Here at Cox Bar School we strive to provide our students and staff with a safe and healthy campus, which naturally includes a fresh and dependable drinking water supply. We want you to understand the efforts we make to continually monitor our water quality and to protect our water resources.

We regularly test our 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 1st through December 31st, 2009. We were glad to be able to give our kids clean, fresh water again this past year.

Our drinking water is supplied by **one untreated groundwater well (Horizontal Well)**, located at Haphazard Mine.

The source was evaluated by the State in August 2002, to determine if there were **possible contaminating activities** that might compromise the quality of the water. At the time, there were no associated contaminants detected in the water supply, however the source was still considered vulnerable to managed forest practices and other well water supplies. A copy of the complete report is available online:

<http://swap.ice.ucdavis.edu/TSinfo/TSintro.asp>.

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 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** 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 storm water 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 USEPA and the state 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.

Please note that 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.**

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. 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 (1-800-426-4791).

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline: (1-800-426-4791).

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

For questions or concerns about your drinking water you may contact:

**Cherie Donahue, District Administrator**  
**Phone: 530 623-6316**

### TERMS USED IN THIS REPORT

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

**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 contaminants.

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

**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.

**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)



These tables show all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The Department of Health Services allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an MCL, MRDL, or TT is asterisked and explained below.

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	(in a month) 0	none	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(in the year) 0	none	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

\* No bacteria samples were received at Basic Laboratory, Inc. during 2009. Please contact Cox Bar School for more information.

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) 09/25/07	5	ND	none	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 09/25/07	5	ND	none	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	11/29/06	5		none	none	Generally found in ground & surface water
Hardness (ppm)	11/29/06	197		none	none	Generally found in ground & surface water

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD *						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Total Trihalomethanes or TTHMs (ppb)	09/25/07	1.4		80	none	Byproduct of drinking water chlorination
Fluoride (ppm)	11/29/06	0.8		2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

\* We failed to collect samples for some primary drinking water contaminants as required by our chemical monitoring schedule. The most recent samples for nitrate, gross alpha and volatile organic carbons were non-detect, however, we will be testing these again during 2010 to insure our current water quality.

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	11/29/06	2		500	none	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	11/29/06	8.7		500	none	Runoff/leaching from natural deposits; industrial wastes.
Foaming Agents or MBAS (ppb)	11/29/06	30		500	none	Municipal and industrial waste discharges
Specific Conductance or EC ( $\mu$ S/cm)	11/29/06	454		1600	none	Substances that form ions when in water; seawater influence
Total Dissolved Solids or TDS (ppm)	11/29/06	279		1000	none	Runoff/leaching from natural deposits
Turbidity (units)	11/29/06	0.1		5	none	Soil runoff

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS				
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Notification Level	Health Effects Language