

2009 Seldovia Water Consumer Confidence Report

The City of Seldovia is pleased to present to you this year's **Annual Water Consumer Confidence Report**, which covers January-December 2009. This report is designed to inform you about the quality water and services we deliver to you every day. Our 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. As most of you are aware, the City of Seldovia has been actively working on city water and sewer upgrades for a number of years and are nearing completion of Phase I of the Water and Sewer Project. We continue to strive to optimize our current treatment system and maintain and repair leaks in the water distribution system as needed.

During 2009, Seldovia operated under the Filtration Avoidance program. This program, allowed by State and Federal regulations allows a water system using a surface water source to treat the raw water without filtration if the system can meet very strict standards governing the raw and treated water quality, system design and watershed control. Because of the new Long term 2 Rule, Seldovia will be required to perform more testing. We have acquired water testing lab equipment and currently have Provisional Certification. This will help us meet required testing with immediate results. Minor modifications will be made to the water treatment plant. Alarms, and a secondary disinfection system, along with daily testing results will help monitor the water quality and to improve our ability to respond quickly to poor water quality. Also, to further address this problem, the City of Seldovia intends to install filtration at the water treatment plant within the next couple of years. Filtration will enhance the water quality by removing more of the organic matter from the water prior to it being disinfected and will provide a double-barrier system which will increase the removal and inactivation of micro-organisms that may exist in the raw untreated water source.

Last year, we conducted tests for over 80 contaminants. We only detected 6 of those contaminants, and found only 1 at a level higher than the EPA allows. As we told you at the time, our water temporarily exceeded drinking water standards. (For more information see the section labeled Violations at the end of the report.) This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

Do I need to take special precautions?

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. 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 Water Drinking Hotline (800-426-4791).

Where does my water come from?

Our water source is surface water from the upper water reservoir located in the hills east of the airport. For those of you that don't know where the reservoir is located, a copy of the topographical map is available for review at the city office.

Currently, treatment takes place at the chlorination building where chlorine is added to treat the raw water born pathogens. The water is then placed in a 550,000-gallon storage tank.

The water moves from the storage tank to the distribution lines serving the city. The treated water is tested daily for turbidity, chlorine levels, temperature and pH. In addition, a weekly sample from the raw water is tested for fecal coliform bacteria. We also sample five sites around town to test for chlorine residual in the distribution system.

There is approximately 15,840 feet of water pipe within Seldovia's water distribution system. The water distribution system starts at the upper reservoir and is piped to the chlorinating building. Chlorine is added as the water moves to the tank, then to the distribution lines to the city. Over 55 valves control the water system, and there are 52 hydrants.

The water system for Seldovia is controlled by the City of Seldovia. At present, we have two certified water operators: Jordan Cameron and Matt Gallien.

Why are there contaminants in my drinking water?

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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

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. Therefore, one can reasonably expect their drinking water, including bottled water, to contain small amounts of contaminants. It is important to remember that the presence of contaminants does not necessarily indicate that water poses a public health risk, and the risk is dependent on such things as the level of contamination and the length of exposure.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from septic systems, agricultural livestock operations, and wildlife; Inorganic contaminants, such as salts and metal, which can be naturally occurring; Pesticides and herbicides, which may come from a variety of sources such as agriculture and residential uses; Organic chemical contaminants, including synthetic and volatile chemicals, which are byproducts of industrial processes and septic systems; and/or Radioactive contaminants, which can be naturally occurring or by the result of oil and gas mining activities. The Maximum Contaminant Level (MCL) are set by the EPA at

very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. Consumers may obtain additional information about individual contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Copper and Lead information

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. The City of Seldovia 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>.

Copper is an essential nutrient, but some people who drink water-containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water-containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. Compliance with the Lead and Copper Rule is based on 90 percent of the results being less than or equal to the action level (AL). In 2009 five houses were sampled, and 2 houses failed the AL for copper, so we exceeded the action for this contaminant. We will complete a corrosion control study to determine if we can treat the water in a way to make it less corrosive, which ultimately would reduce the lead and copper "at the tap." This corrosion control study is being completed along with an entire system design review. When it is determined what type of treatment we will install, further notice will be provided.

Monitoring and reporting of compliance data violations

As you are aware, the water system occasionally has elevated turbidity due to poor water quality at our water source. High turbidity can interfere with disinfection and can increase the risk of microbiological contamination in our system. Whenever this occurs, we send out public notices to the utility customers to keep everyone apprised of any health concerns. If you receive one of these public notices and have questions, please contact the City at 234-7643 so we can discuss any concerns you may have.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

| <u>Contaminants</u> | <u>MCLG or MRDLG</u> | <u>MCL, TT, or MRDL</u> | <u>Your Water</u> | <u>Range Low</u> <u>High</u> | <u>Sample Date</u> | <u>Violation</u> | <u>Typical Source</u> |
|---|----------------------|-------------------------|-------------------|--------------------------------|-------------------------------|-------------------|---|
| Disinfectants & Disinfectant By-Products | | | | | | | |
| (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants) | | | | | | | |
| TTHMs [Total Trihalomethanes] (ppb) | NA | 80 | 54.1 | NA | 2009 | No | By-product of drinking water disinfection |
| Haloacetic Acids (HAA5) (ppb) | NA | 60 | 10.6 | NA | 2009 | No | By-product of drinking water chlorination |
| Inorganic Contaminants | | | | | | | |
| Nitrate [measured as Nitrogen] (ppm) | 10 | 10 | 0.955 | NA | 2009 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Microbiological Contaminants | | | | | | | |
| Turbidity (NTU) | NA | 5 | 2 | NA | 2009 | No | Soil runoff |
| <u>Contaminants</u> | <u>MCLG</u> | <u>AL</u> | <u>Your Water</u> | <u>Sample Date</u> | <u># Samples Exceeding AL</u> | <u>Exceeds AL</u> | <u>Typical Source</u> |
| Inorganic Contaminants | | | | | | | |
| Lead - action level at consumer taps (ppb) | 0 | 15 | 12.7 | 2009 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper - action level at consumer taps (ppm) | 1.3 | 1.3 | 1.87 | 2009 | 0 | Yes | Corrosion of household plumbing systems; Erosion of natural deposits |

| <u>Contaminants</u> | <u>MCLG</u> | <u>AL</u> | <u>Your</u> | <u>Sample</u> | <u>Violation</u> | | <u>Typical Source</u> |
|--|-------------|-----------|--------------|---------------|------------------|--|--|
| | | | <u>Water</u> | <u>Date</u> | | | |
| Disinfectants and Disinfectant By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants) | | | | | | | |
| Gross Alpha | 0 | 15 | -1.2 | 2006 | No | | Erosion of Natural Deposits |
| Gross Beta | 0 | 50 | 2.1 | 2006 | No | | Decay of natural and man-made products |

| Unit Descriptions | |
|---|---|
| Term | Definition |
| ppm | ppm: parts per million, or milligrams per liter (mg/L) |
| ppb | ppb: parts per billion, or micrograms per liter (µg/L) |
| NTU | NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. |
| NA | NA: not applicable |
| ND | ND: Not detected |
| NR | NR: Monitoring not required, but recommended. |
| Important Drinking Water Definitions | |
| Term | Definition |
| MCLG | MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. |
| MCL | MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. |
| TT | TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. |
| AL | AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| Variances and Exemptions | Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions. |
| MRDLG | MRDLG: Maximum residual disinfection level goal. 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. |
| MRDL | MRDL: Maximum residual disinfectant level. 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. |
| MNR | MNR: Monitored Not Regulated |
| MPL | MPL: State Assigned Maximum Permissible Level |

If you have any questions about this report or your water utility, please contact the Tim Dillon, City Manager at 234-7643. We want our customers to be informed about their water utility. You may also come to the City Seldovia council meetings scheduled for the second and fourth Wednesdays of each month, held in Multipurpose Room.