

THUNDERBIRD COUNTY WATER DISTRICT

BOARD OF DIRECTORS

Beth Drake, President
Betty Kreml, Vice President
Lynn Lindburg, Director
Vicky Stemen, Director
Bob Tebbetts, Director

GENERAL MANAGER

Roy Shull

BUSINES HOURS

Monday & Wednesday
8:00 a.m. to 12 Noon

2012 CONSUMER CONFIDENCE REPORT

The purpose of this report is to increase your understanding and confidence in the quality of drinking water delivered to you by the District. Our source of water is from three (3) wells. The District is continuing to disinfect the water to prevent the formation of any microbiological contaminants. However, the dosage of chlorine that is injected is kept to a minimum to prevent its taste in the water. Periodically, the District flushes its mains to remove any particles, which may buildup in the system. Failure to perform this service could cause the creation of dirty water, which results from the buildup of sand, calcium deposits and corrosion byproducts. Occasionally, questions are asked about the cloudiness that exists in the water. This is caused by small air bubbles trapped in the water and is completely harmless. The white material that may appear on glassware after washing is formed by minerals in the water, which remain after the water has evaporated.

The District routinely monitors for contaminants in your drinking water according to Federal and State laws. The table included in this report shows the results of our monitoring for the period of January 1st to December 31st, 2012. **Only contaminants that were detected are shown in the table.** The table in this report is divided into sections listing “*Primary*” and “*Secondary*” standards. Primary and secondary standards are set forth by the California Department of Health Services (CDHS) and the U.S. Environmental Protection Agency (USEPA). Primary standards are set to protect public health from contaminants in water that may be immediately harmful to humans or affect their health if consumed for long periods of time. Secondary standards govern esthetic qualities of water such as taste, mineral content, odor, color, and turbidity. In this table you will find many terms and abbreviations, which are provided to help you understand the results of our monitoring. To help you better understand these terms, the following definitions are provided:

No Standard (NS) - No standard has been established for this contaminant.

mg/L - Milligrams per liter or *ppm* – Parts per million

ug/L - Micrograms per liter or *ppb* – Parts per billion

Nephelometric Turbidity Unit (NTU) – Nephelometric turbidity is a measure of the clarity of the water. Turbidity in excess of 5 NTU is barely noticeable to the average person.

pCi/L – *picocuries per liter*

Treatment Techniques (TT) – A treatment technique is a required process intended to reduce the level of contamination 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.

Public Health Goal (PHG) – Public Health Goal is a State term while MCLG is a Federal term.

PRIMARY STANDARDS

<u>Contaminant</u>	<u>MCL</u>	<u>PHG or MCLG</u>	<u>Range</u>	<u>AVG</u>	<u>Violation</u>	<u>Likely Sources of Contaminant</u>
<u>Inorganic Chemicals</u>						
Arsenic (ug/l)	10	.004	2.1 - 2.8	2.45	No	Erosion natural deposits
Fluoride (mg/L)	2	1	1.6 – 2.1	1.83	No	Erosion of natural deposits
Nitrate (as NO ₃) (mg/L)	45	10	9.2 - 33	25.03	No	Leaching from septic tanks, sewage; erosion of natural deposits
Nitrate+Nitrite(as N) (ug/L)	10,000		2700-8600	5650	No	Leaching from septic tanks, sewage; erosion of natural deposits

SECONDARY STANDARDS

<u>Contaminant</u>	<u>MCL</u>	<u>PHG or MCLG</u>	<u>Range</u>	<u>AVG</u>	<u>Violation</u>	<u>Likely Sources of Contaminant</u>
Turbidity (NTU)	5	None	0.1-0.3	0.2	No	
Chloride (mg/l)	500	None	40-86	63	No	
Specific Conductance E.C. (umhos)	1600	None	570-790	680	No	
Odor (TON)	3	None	1-1	1	No	
TDS (mg/L)	1000	None	370-510	440	No	
Sulfate (mg/l)	500	None	99-130	114.5	No	Erosion natural deposits

RADIONUCLIDE ANALYSES

<u>Contaminant</u>	<u>Action Level</u>	<u>PHG or MCLG</u>	<u>Range</u>	<u>AVG</u>	<u>Violation</u>	<u>Likely Sources of Contaminant</u>
Gross Alpha (pCi/L)	15	N/A	ND-3.3	1.65	No	Erosion of natural deposits

LEAD AND COPPER DETECTION (b)

<u>Contaminant</u>	<u>Action Level</u>	<u>PHG or MCLG</u>	<u>90th Percentile</u>	<u>AVG</u>	<u>Violation</u>	<u>Likely Sources of Contaminant</u>
Lead (ug/L)	15	2	0	15	No	Corrosion of home plumbing
Copper (mg/L)	1.3	0.3	0.16	1.3	No	Corrosion of home plumbing

ADDITIONAL PARAMETERS (mg/L) - unregulated

<u>Contaminant</u>	<u>Action Level</u>	<u>PHG or MCLG</u>	<u>Range</u>	<u>AVG</u>	<u>Violation</u>	<u>Likely Sources of Contaminant</u>
Hardness (Ca CO ₃) (mg/l)	NS	None	180-270	225	No	Generally found in ground & surface water
Vanadium (ug/l)	None	None	13-16	14.5	No	
Boron (ug/l)	None	None	160-170	165	No	
Bicarbonate(HCO) (mg/L)	NS	None	140-140	140	No	
Potassium(K) (ug/l)	None	None	2.3-2.7	2.5	No	
Sodium (Na) (mg/l)	NS	None	43-50	46.5	No	Generally found in ground & surface water

MICROBIOLOGICAL TESTING for BACTERIA (a)

<u>Contaminant</u>	<u>MCL:</u>	<u>Violations</u>	<u>Likely Sources of Contaminant</u>
Total Coliform	More than 1 sample in a month with a detection	0	Naturally present in the environment
E. Coli/Fecal Coliform	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 waste

(a) Coliform is generally not harmful by itself, but its presence does cause concern, since it is an indication that other organisms may be present, which potentially could be harmful. When the number of positive tests exceeds the number allowed, then this is considered a violation of the MCL and the public must be notified as soon as possible. To reduce the potential for the formation of Coliform bacteria, the District has initiated a plan to eliminate many of the dead-end mains in the system. This will then improve the flow through the system and will prevent the occurrence of stagnant water, which could otherwise provide the environment necessary for the formation of Coliform bacteria.

(b) Action level measured at the consumers tap that would require a treatment technique (TT).

Contaminants that may be present in source water are microbial contaminants, inorganic chemical contaminants, pesticides & herbicides, radioactive contaminants and organic chemical contaminants.

- Microbial contaminants, such as viruses and bacteria, are most likely to come from septic tanks and wildlife.
- Inorganic chemicals, such as salts and metals, are most likely to come from naturally occurring sources.
- Pesticides and herbicides are most likely to come from residential sources.
- Radioactive contaminants are most likely to come from natural sources.
- Organic chemicals, including synthetic and volatile organic chemicals, are most likely to come from storm water runoff or septic tanks.

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider

All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hot Line at 1-800-426-4791. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two 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.

Some people are on salt-free diets and must be aware of sodium in the water. Currently, the District's level averages 47 mg/L. It's suggested that you consult your physician for your own requirements. Persons on low sodium diets should not drink water softened with a typical ion-exchange water softener since these significantly raise the sodium content of the water. Softening is almost entirely a matter of personal preference, since hard water is not harmful to health. Currently, the District's water hardness averages 260 mg/L, which may be slightly higher than other areas in the Victor Valley.

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. Thunderbird County Water District 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>.

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/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the EPA's Safe Drinking Water Hotline (1-800-426-4791)

**If you have any questions about this report please contact:
Roy Shull, General Manager, at (760) 247-2503**