

**THERMALITO WATER AND SEWER DISTRICT
2010 Water Quality Consumer Confidence Report
Public Water System Number 0410008**

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

Daimntawv tshaj tawm no muaj lus tseemceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub txog nws.

Water for Thermalito Water and Sewer District originates from six sources known as Treatment Plant (Treat. Pl Surface water) on the Powers Canal, Well #2 Biggs Ave., Well #3 12th St., Well #4 Table Mt. Blvd., and Well #5 at Treatment Plant. All wells draw from the Tuscan aquifer. The District has an interconnection with California Water Service of Oroville (CW1). The District will use this source for worse case needs only. When the District uses this source TWSD will show it in this CCR. The District did not use this source for the year of 2010.

Definition of Terms Used in this Report

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

CCR: Consumer Confidence Report. This CCR summarizes information that TWSD collects to comply with regulations.

HAA5 Haloacetic Acids (five): A type of disinfectant by-product.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs as is technologically and economically feasible.

MCLG (Maximum Contaminant Level Goal): The level of contaminant in drinking water below which there is no known or expected risk to health. The U.S. EPA sets MCLGs.

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

MRDLG (Maximum Residual Disinfectant 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.

ND (Not Detected): Not detected or detected but below the Detection Limit for Purposes of Reporting (DLR).

NL (Notification Level): The concentration of an unregulated contaminant, which, if exceeded, triggers notification to the Butte County Supervisors and City of Oroville Council.

NTU (Nephelometric Turbidity Unit): A measure of water clarity.

pCi/l (Picocuries per liter): A measure of radiation.

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

PHG (Public Health Goal): 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 EPA.

ppb: (Parts per billion): One part substance per billion parts water (micrograms per liter).

ppm: (Parts per million): One part substance per million parts water (or milligrams per liter).

ppt: (Parts per trillion): One part substance per trillion parts water.

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

TTHM (Total Trihalomethanes): A type of disinfectant byproduct.

Source of Drinking Water (Both tap water and bottled water) includes 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, 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:

- *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 stormwater runoff, agricultural application and septic systems.
- *Organic Chemical Contaminants* including synthetic and volatile organic chemicals that are byproducts of industrial application and septic systems.
- *Radioactive Contaminants* that can be natural-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 U.S. EPA and the State Department of Public Health (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 provide the same protection for public health.

Tables 1, 2, 3 and 4 list all of the drinking water contaminants that were detected during the most recent sampling for the constituents. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once a year because the concentration of these contaminants do not change frequently. Some of the data is more than one year old.

Microbiological Water Quality (Total Coliform Rule)

Testing for bacteriological contaminants in the distribution system is required by state regulations. This test is done regularly to verify that the water system is free of coliform bacteria. The minimum number of tests required per week is three. In 2010, the District took a total of 156 samples. No coliform bacteria were detected.

Turbidity Monitoring

Turbidity is a source of soil runoff in surface water.

TABLE 1-Turbidity Monitoring Results Surface Water Filtration

Microfiltration ^(a)	
Turbidity performance ^(b)	The Turbidity Level of the Combined Membrane Permeate Water: 1-Shall not exceed 0.1 NTU in 95% of measurements taken each month. 2-Shall not exceed 1.0 NTU anytime based on 15-minute monitoring intervals.
Lowest Monthly percentage of samples that meet Turbidity Performance Standard #1	All samples were below the 0.10 NTU requirement
Highest Single Turbidity measurement during the year	0.072 NTU
Number of violations of any surface water treatment requirements.	None

TABLE 1A-Turbidity Monitoring Results Surface Water Filtration

Pressure Vessel Filtration System ^(a)	
Turbidity performance ^(b)	The Turbidity Level of the Combined Membrane Permeate Water: 1-Shall not exceed 0.1 NTU in 95% of measurements taken each month. 2-Shall not exceed 1.0 NTU anytime based on 15-minute monitoring intervals.
Lowest Monthly percentage of samples that meet Turbidity Performance Standard #1	This treatment facility was backwashed monthly and kept on stand-by status.
Highest Single Turbidity measurement during the year	This plant runs filter to waste and no water was put into the system. Maximum run time each month was 58 minutes.
Number of violations of any surface water treatment rules.	None

(a) A required process intended to reduce the level of Contaminants in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance standards are considered to be in compliance with filtration requirements.

The following table gives a list of all detected chemicals in our water during the most recent sampling. Please note that not all sampling is required annually so in some cases our results are more than one year old.

TABLE 2-Detected Contaminants in our Water							
	Source	Year Tested	Range Detected	Average	MCL [MRDL]	PHG (MCLG)	Origin
Aluminum	Treat PL	2006	217 ppb	217ppb	1.0 ppm	0.6 ppm	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic	Wells #2-4	2009	ND-4.0 ppb	1.5 ppb	10 ppb	0.004 ppb	Erosion of natural deposits
Chloride	Treat. Pl. Wells 2-5	2006 2006	15.2 ppm 1.7-10.7 ppm	15.2 ppm 4.88 ppm	500 ppm	None	Naturally occurring
Hardness	Treat. Pl. Wells 2-5	2006 2006	102.0 ppm 51-120 ppm	102 ppm 76.8 ppm	None	None	Naturally occurring
Manganese	Well #5	2006	ND-26 ppb	6.5 ppb	50 ppb	None	Leaching from natural deposits
Sodium	Treat. Pl. Wells 2-5	2006 2006	26.5 ppm 7.4-29.0 ppm	26.5 ppm 16.9 ppm	None	None	Naturally occurring
Fluoride	Wells 2, 3, 4 & 5	2006	ND-400 ppb	275 ppb	2000ppb	1000 ppb	Erosion of natural deposits
Nitrate NO ₃	Wells 2-5 Treat.Pl.	2010 2010	2.0-13.3 ppm ND	5.63 ppm ND	45.0 ppm	45.0 ppm	Runoff and leaching from fertilizer use and erosion of natural deposits
Sulfate	Treat. Pl. Well #3-5	2006 2006	23.8 ppm 4.9-16.3 ppm	23.8 ppm 11.5 ppm	500 ppm	None	Naturally occurring
TDS	Wells 2-5 Treat PL	2006 2006	129-222 ppm 202 ppm	167ppm 202 ppm	1000 ppm	None	Naturally occurring
TTHM's	57 Titanio Ct 12th&Plumas Ave 200Windward Wy	2010 2010 2010	33.1-41.7 ppb 20.3-44.7 ppb 17.8-45.4 ppb	35.36 ppb 26.95 ppb 27.13 ppb	80 ppb	None	Byproduct of drinking water disinfection
HAA5	57 Titanio Ct	2010	11.0-31.0 ppb	23.75 ppb	60 ppb	None	Byproduct of drinking water disinfection
Chlorine	Treat Pl.	2010	0.81-1.19ppm	1.0 ppm	[4 ppm as Cl ₂]	None	Injected as a disinfectant

TABLE 3-Detected Unregulated Contaminants							
Chemical Detected	Source	Year Detected	Range Detected	Average	MCL	PHG	Origin
Boron	Wells 2 & 4	2004	400-585 ppb	493 ppb	NL is 1000 ppb	None	Runoff/leaching from natural deposits
Vanadium	Wells 2 & 4	2004	18-31 ppb	24.5 ppb	NL is 50 ppb	None	Leaching from natural Deposits

Unregulated contaminant monitoring helps EPA and California Department of Health Services to determine where certain contaminants occur and whether the contaminants need to be regulated.

Lead and Copper testing of water from individual taps in the distribution system is required by state regulations. The table below summarizes the most recent monitoring for these constituents in parts per billion (**ppb**). Twenty samples are required every three years.

TABLE 4-Lead and Copper Testing Results						
Tested 2010	# of Sample Collected	ppb 90th Percentile Results	# of Sites Over Action Level	Action Level	PHG	Source of Contaminant
Lead ug/L	20	1.5 ug/L	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper ug/L	20	199 ug/L	0	1300	300	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Additional General Information on Drinking Water

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. Thermalito Water and Sewer 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>.

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 U.S. EPA’s Safe Drinking Water Hotline (1-800-426-4791).

The source water assessment was completed February 2003 for the surface water, and five wells that serve the community of Thermalito. The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

Groundwater Wells:

- Sewer Collection Systems (Well #2, and 3)
- Agriculture, Water Supply Well (Well #4)
- Drinking Water Treatment Plants, Water Supply Well (Well #5)

Surface Water:

Airports, concentrated aquatic animal production, historic gas stations, septic systems, and waste water treatment plants.

A copy of the complete assessment may be viewed at:

DHS Valley District Office
 415 Knollcrest Drive Suite 110
 Redding, CA 96002
 Attn: Richard Hinrichs, 530-224-4867

or Thermalito Water and Sewer District
 410 Grand Avenue
 Oroville, CA 95965
 Attn: Jayme Boucher, 530-533-0740

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons



such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly individuals, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Thermalito Water and Sewer District Board meets at 410 Grand Ave., the third Tuesday of each month at 2:00 PM. The public is welcome.

For additional information concerning your drinking water, contact David McInturf or Michael Edwards at 530-533-0740.