

## Public Education

The City of Thousand Oaks is pleased to present to you this year's Annual Water Quality Report. We are committed to providing you this information in the sincere belief that informed customers are our best partners. Included in this report are details about where your water comes from, what it contains and how it compares to State standards. The City works very hard with our neighbors, our partners and suppliers to continually improve the quality of the water supply, the protection of our water sources, the dependability of supply and the integrity of our storage and distribution system.

*Este informe contiene información muy importante sobre su agua para beber. Tradúzcalo ó hable con alguien que lo entienda bien. Para mas informacion, puede llamar al 805/449-2400.*

For additional information about your drinking water, contact the Public Works Department at (805) 449-2400.

## Public Participation

The City of Thousand Oaks drinking water system is managed as an enterprise fund by the elected City Council. Operations are conducted by the Public Works Department. The City Council meets on Tuesday evenings at 6 PM in the Scherr Forum Theater in the Civic Arts Plaza, 2100 Thousand Oaks Blvd. For information about Council meeting schedules, please call (805) 449-2151.



## Purity and Contaminants

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 risks may also be obtained by calling the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap 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.

Last year, over 4000 tests were conducted on our drinking water for over 80 drinking water constituents and contaminants to ensure the safety of your drinking water. Prior to filtration and treatment, contaminants that may be present in source water include:

**Inorganic contaminants**, such as salts and metals that can be naturally occurring or result from urban stormwater run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater run-off, agricultural application and septic systems.

**Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

**Radiological contaminants**, that can be naturally occurring or the result of oil and gas production and mining activities.

**Pesticides and Herbicides**, that may come from a variety of sources such as agriculture, urban stormwater run-off and residential uses.

## Fluoride

MWD initiated a Fluoride Optimization Program in November of 2007. Naturally occurring fluoride level ranges from 0.1 to 0.3 mg/L (parts per million). MWD has adjusted the level to the optimal range for dental health of 0.7 and 0.8 mg/L. If you or your children are taking Fluoride supplements, please consult with your dentist or dental healthcare provider for further direction.

## Public Health

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer who are 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 their drinking water from their health care providers. The EPA and the Centers for Disease Control guidelines on appropriate means to lessen the risk from infection by Cryptosporidium and other microbial contaminants are available from the US-EPA Safe Drinking Water Hotline (800) 426-4791.

For additional information about your drinking water, contact the Public Works Department at (805) 449-2400.

## Our Water Source

The source of our supply is State Project water imported from Northern California. This State Project water is transported from the Sacramento River Delta through the California Aqueduct to Southern California. It is treated, filtered and disinfected at Metropolitan Water District's (MWD) Jensen Filtration Plant in Granada Hills. Our supply is piped directly to Thousand Oaks through the transmission facilities of the Calleguas Municipal Water District. Should this supply be interrupted by earthquake or other calamity, among other options, Calleguas can also deliver State Project water to the City from the Lake Bard Water Filtration Facility and Reservoir located in the hills between Thousand Oaks and Simi Valley.

Lead was not detected in the water supply. However, 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 is responsible for providing high quality drinking water, but cannot control the variety of materials used in residential plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap before using the 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>.

MWD has conducted a source water assessment of its State Water Project supplies. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850.

In order to ensure that tap water is safe to drink, the DPHS prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The quality of our drinking water meets all State requirements for safe water.

## Our Mission

The City Public Works Department distributes up to 15 million gallons of water each day to more than 16,000 residences and businesses. Our mission is to provide high quality water that meets the stringent water quality standards established by the U.S.-Environmental Protection Agency (EPA) and the State of California Department of Public Health Services (DPHS). The Public Works Department is dedicated to providing you a dependable supply of safe, high quality water.



## 2011 Annual Water Quality Report

Published May 2012

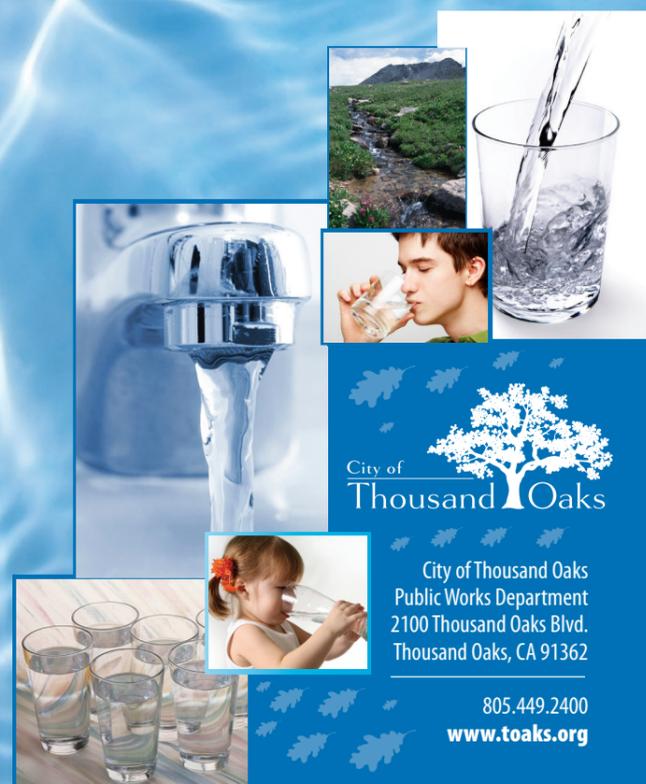


providing  
dependable,  
high quality  
water

**WATER**  
IT'S NOT  
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## Water Quality Data

The attached table lists the drinking water contaminants that were detected in City drinking water during 2011. The presence of any of these contaminants in the water does not necessarily constitute a health risk. As you can determine from the results, the quality of the water delivered by the City consistently meets all State Standards. The data presented in this table is from testing performed between January 1 and December 31, 2011, unless otherwise noted. State of California Standards are either equal to, or more stringent than federal EPA water quality standards. Therefore, federal MCLs are not listed. Applicable Abbreviations, Definitions and Notes are identified at the conclusion of the Table.

## Abbreviations and Notes

NS	No Standard
NC	Not Collected
ND	None Detected. Detection limits for the purposes of reporting (DLRs) available on request
NL	Notification Level
DBP	Disinfection By-Product
RAA	Running Annual Average
TON	Threshold Odor Number
µS/cm	micro Siemen per Centimeter (to measure conductivity)

- [a] The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU at any time. 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. Monthly turbidity values are listed in the *Secondary Standards* section.
- [b] Total coliform MCLs: no more than 5.0% of the monthly samples may be total coliform positive. Fecal coliform/*E. coli* MCLs: the occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/*E. coli*, constitutes an acute MCL violation. These MCLs were not violated in 2011. Results are based on the distribution system's highest monthly percent positives. Over 780 samples were analyzed in 2011.
- [c] MWD initiated a Fluoride Optimization Program in 11/07. See text for further detail.
- [d] The State MCL is 45 mg/L as Nitrate, which equals 10 mg/L as N. (As Nitrogen). Nitrite was ND in 2011.
- [e] Results are for 2011, part of a 4-quarter radiological monitoring program. Water utilities are required to make these surveys every three years. The screening level is 50 pCi/L.
- [f] Compliance for treatment plants that use ozone is based on a running annual average of monthly samples, which was in compliance in 2011.
- [g] Compliance is based on a running annual average (RAA) of quarterly distribution systems samples, the RAA was 20.5 ppb for 2011.
- [h] AI measures the aggressiveness of water transported through pipes. AI < 10 is highly corrosive to water systems materials. AI at 12 or above indicates non-aggressive water.

## DPHS/Abbreviations and Definitions

<b>AI</b>	Aggressiveness Index
<b>AL</b>	Regulatory Action Level = The level of contaminant which when exceeded, triggers treatment or other requirements that a water system must follow.
<b>MCL</b>	Maximum Contaminant Level = The highest level of 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.
<b>MCLG</b>	Maximum Contaminant Level Goal = The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the US Environmental Protection Agency (EPA).
<b>MRDL</b>	Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.
<b>MRDLG</b>	Maximum Residual Disinfectant Level Goal. The level of 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.
<b>NTU</b>	Nephelometric Turbidity Units
<b>PHG</b>	Public Health Goal = The level of contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency (Cal-EPA).
<b>pCi/L</b>	Picocuries per liter (units to measure radiation)
<b>ppm</b>	parts per million, or milligrams per liter (mg/L)
<b>ppb</b>	parts per billion, or micrograms per liter (µg/L)
<b>ppt</b>	parts per trillion, or nanograms per liter (ng/L)
<b>TT</b>	Standards are Treatment Techniques with which Metropolitan and Calleguas are in compliance.

## Primary Standards - Mandatory Health-Related Standards

Parameter	Units	State MCL	PHG (MCLG)	Low	High	Average	Potential Major Sources if Detected in Drinking Water
<b>CLARITY [a]</b>							
Combined Filter Effluent Turbidity	NTU	0.3			0.05		
	%	95% < 0.3 [a]	NA		100%		Soil runoff

### MICROBIOLOGICAL [b]

Total Coliform Bacteria (Total Coliform Rule)	[b]	5.0%	(0)	0	0.158%	0.026%	Naturally present in the environment
Standards for <i>Cryptosporidium</i> , <i>Giardia lamblia</i> , <i>Legionella</i> , viruses and Heterotrophic Plate Count Bacteria are Treatment Techniques (TT) with which Metropolitan and Calleguas comply							

### ORGANIC CHEMICALS

#### Pesticides/PCBs

27 chemicals were analyzed – none were detected

#### Semi-Volatile Organic Compounds

8 chemicals were analyzed – none were detected

#### Volatile Organic Compounds

27 chemicals were analyzed (including MTBE, PCE and TCE) – none were detected

### INORGANIC CHEMICALS

Aluminum	ppb	1000	600	61	99	82	Erosion of natural deposits; residue from water treatment process
Arsenic	ppb	10	0.004	2.3	2.3	2.3	Erosion of natural deposits; run-off from orchards, electronics production wastes
Copper (2010) (at the customer tap)	ppm	AL=1.3	0.3	90th percentile of 39 samples was 0.160, No samples exceeded the AL			Erosion of natural deposits; internal corrosion of household pipes
Fluoride [c]	ppm	2.0	1	0.7	0.9	0.8	Erosion of natural deposits; water additive that promotes strong teeth
Lead (2010) (at the customer tap)	ppb	AL=15	0.2	90th percentile of 39 samples was 2.42, No samples exceeded the AL			Internal corrosion of household pipes; erosion of natural deposits
Nitrate (as N) [d]	ppm	10	10	0.4	0.5	0.4	Runoff & leaching from fertilizer use; sewage; erosion of natural deposits
15 metals and other chemicals were analyzed (including Asbestos, Chromium, Perchlorate, Mercury and Cyanide) – none were detected. Copper and Lead were not detected in the water supply.							

### RADIONUCLIDES [e] [analyzed every three years, for four consecutive quarters]

Gross Beta Particle Activity [e]	pCi/L	50	(0)	ND	4	ND	Decay of Natural and manmade Deposits
Uranium	pCi/L	20	0.43	ND	2	1	Erosion of Natural Deposits
4 radionuclides were analyzed – none were detected							

### DISINFECTANT RESIDUALS / DISINFECTION BY-PRODUCTS - Federal Rule

Bromate [f]	ppb	10	0.1	ND	8.8	5.9	By-product of drinking water disinfection
		MRDL	MRDLG				
Chloramines	ppb	4	4	0.01	2.7	1.84	Drinking water disinfectant added for treatment
Haloacetic Acids (HAA5)	ppb	60	N/A	ND	7	4	By-product of drinking water disinfection
Total Trihalomethanes (TTHM's) [g]	ppb	80	N/A	19	24.5	20.5	By-product of drinking water disinfection

## Secondary Standards - Aesthetic Standards

Aluminum	ppb	200	600	61	99	82	Erosion natural deposits; residue from water treatment process
Chloride	ppm	500	N/A	59	69	64	Runoff/leaching from natural deposits; seawater influence
Color	Units	15	N/A	1	1	1	Naturally occurring organic materials
Odor Threshold	TON	3	N/A	2	2	2	Naturally occurring organic materials
Specific Conductance	µS/cm	1600	N/A	420	530	500	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	N/A	54	58	56	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1000	N/A	280	290	280	Runoff/leaching from natural deposits; seawater influence
Turbidity (Monthly)	NTU	5	N/A	0.03	0.09	0.03	Soil runoff
9 metals and other constituents were analyzed – none were detected							

## Additional Parameters (Unregulated)

Alkalinity	ppm	NS	NS	76	93	85	
Boron	ppb	NL=1000	NS	190	190	190	
Calcium	ppm	NS	NS	26	28	27	
Chlorate	ppb	NL=800	NS	26	26	26	
Corrosivity [h]	AI	NS	NS	12.0	12.0	12.0	
Hardness (Total Hardness)	ppm	NS	NS	100	120	110	110 ppm = 6.4 grains per gallon (gpg)
Magnesium	ppm	NS	NS	12	12	12	
N-Nitrosodimethylamine (NDMA)	ppt	NL=10	3	ND	6.0	3	
pH	Units	NS	NS	8.1	8.4	8.2	
Potassium	ppm	NS	NS	3	3	3	
Sodium	ppm	NS	NS	52	57	54	
Total Organic Carbon	ppm	NS	NS	1.6	2.1	1.9	
Vanadium	ppb	NL=50	NS	3	3	3	
30 metals and other constituents were analyzed (including Radon, Chromium VI and Perchlorate) – none were detected							