

2023 Annual Water Quality Report

(Reporting 2022 Data) PWSID # 5610020



OUR MISSION

The City of Thousand Oaks (City) Public Works Department distributes up to 15 million gallons of water each day to roughly 17,000 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 (USEPA) and the State Water Resources Control Board (SWRCB). The Public Works Department is dedicated to providing you with a dependable supply of safe and high-quality water.

For additional information about your drinking water, contact the Water Quality Supervisor in the Public Works Department at 805-449-2499.

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 805-449-2499.

PUBLIC EDUCATION

The City is pleased to present to you this year's Annual Water Quality Report, which shows that the City's water supply met or exceeded all State and Federal standards in 2022. 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.



PUBLIC PARTICIPATION

The City 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 located at 2100 Thousand Oaks Blvd. For information about Council meeting schedules, please call 805-449-2151 or visit www.toaks.org.



OUR WATER SOURCES IN 2022

68% of the City's water supply was from the State Water Project. This surface water is imported from Northern California, which originates at Lake Oroville. The water then flows through the Sacramento River Delta system and is transported via the California Aqueduct to Southern California. The water is treated, filtered and disinfected at the Metropolitan Water District's (MWD) Jensen Filtration Plant in Granada Hills. 24% of the City's water supply was from a blend of the Colorado River Aqueduct and the State Water Project. This water is treated, filtered and disinfected at MWD's Weymouth Filtration Plant in La Verne. These water supplies are then piped directly to the City through the transmission facilities of the Calleguas Municipal Water District (Calleguas) located in Thousand Oaks. 6% of the City's water supply came from Calleguas' Los Posas Wellfields and the last 2% of the City's water supply came from the Calleguas Lake Bard Reservoir and Water Filtration Facility. Should these water sources be interrupted by general maintenance, earthquake or other calamity, Calleguas can deliver water to the City solely from their Las Posas Wellfields and their Lake Bard Reservoir and Water Filtration facilities.



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

Fluoride - MWD initiated a Fluoride Optimization Program in November of 2007. Naturally occurring fluoride level ranges from 0.1 to 0.4 mg/L (parts per million). MWD has adjusted the level to the optimal range for dental health of 0.7 mg/L. If you or your children are taking Fluoride supplements, please consult with your dentist or dental healthcare provider for further direction.

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 (1-800-426-4791).

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.

During the year, thousands of tests were conducted on our drinking water for over 150 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 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.

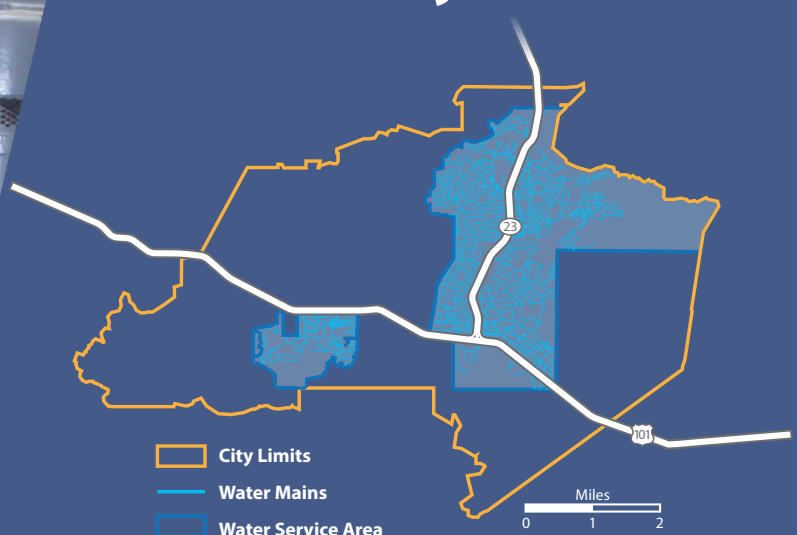
Lead was not detected in the City's water supply. However, if present, elevated levels of lead can cause serious health problems especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and private internal plumbing. The City does not use or install lead service lines and cannot control the variety of materials used in private plumbing components. If you are concerned about lead leaching out of your plumbing materials after your water has not been used for several hours, you can minimize the potential for lead exposure by flushing your tap for at least 30 seconds before using the water for drinking or cooking. Also, if you still have concerns about lead in your water due to internal plumbing materials you can hire a private laboratory to test your water for lead. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) 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 most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD by phone at (213-217-6000).

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



City of Thousand Oaks Water System



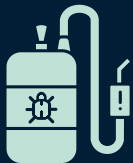
WATER QUALITY DATA

The following table lists the drinking water contaminants that were detected in the City’s drinking water during 2022. 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, 2022, unless otherwise noted. State of California Standards are either equal to, or more stringent than Federal USEPA water quality standards. Therefore, Federal MCLs are not listed. Applicable Abbreviations, Definitions and Notes are identified at the conclusion of the Table.



Parameter	Units	State MCL-MRDL	PHG (MCLG)-MRDLG	Range Average	MWD Jensen Plant 68% of Supply	MWD Weymouth Plant 24% of Supply	Calleguas Las Posas Wellfield 6% of Supply	Calleguas LBWFP 2% of Supply	Potential Major Sources if De-tected in Drinking Water
PRIMARY DRINKING WATER STANDARDS (PDWS) - Mandatory Health-Related Standards									
CLARITY [a]									
Combined Filter Effluent Turbidity	NTU	0.3		Highest Value	0.05	0.04	N/A	0.10	Soil runoff
TT= % of samples ≤0.3 NTU [a]					100%	100%	N/A	100%	
MICROBIOLOGICAL [b]									
Total Coliform Bacteria (State Total Coliform Rule)	% of Samples	5 %	0	Highest Monthly %	1.5%	City of Thousand Oaks Results			Naturally present in the environment
Effective July 1, 2021	Standards for Cryptosporidium, Giardia lamblia, Legionella, viruses and Heterotrophic Plate Count Bacteria are Treatment Techniques (TT) with which MWD and Calleguas comply. There were no detections of fecal coliform or E. Coli bacteria in the City's distribution system in 2022.								

ORGANIC CHEMICALS



Pesticides/PCBs
28 chemicals were analyzed
None Were Detected



Semi-Volatile Organic Compounds
6 Chemicals Were Analyzed
None Were Detected



Volatile Organic Compounds
27 chemicals were analyzed (including MTBE, PCE and TCE)
None Were Detected

Parameter	Units	State MCL-MRDL	PHG (MCLG)-MRDLG	Range Average	MWD Jensen Plant 68% of Supply	MWD Weymouth Plant 24% of Supply	Calleguas Las Posas Wellfield 6% of Supply	Calleguas LBWFP 2% of Supply	Potential Major Sources if Detected in Drinking Water
INORGANIC CHEMICALS									
Aluminum [c]	ppb	1000	600	Range	ND - 81	58 - 240	ND	ND	Erosion of natural deposits; residue from water treatment process
				Average	62	156	ND	ND	
Arsenic	ppb	10	0.004	Range	2.4	ND	2.0 - 5.0	3.0	Erosion of natural deposits; runoff from orchards; electronics production wastes
				Average	2.4	ND	3.0	3.0	
Barium	ppm	1	2	Range	ND	0.107	ND	ND	Erosion of natural deposits; discharge from oil & metal refineries
				Average	ND	0.107	ND	ND	
Copper [d]	ppm	AL=1.3	0.3	Range	ND - 0.20	N/A	N/A	N/A	Internal corrosion of household pipes; erosion of natural deposits
				90th %	0.15	N/A	N/A	N/A	
Fluoride [e]	ppm	2.0	1	Range	0.7 - 0.9	N/A	N/A	N/A	Water additive that promotes strong teeth
Treatment related				Highest RAA	0.7	N/A	N/A	N/A	
Lead [d]	ppb	AL=15	0.2	Range	ND - 5.4	N/A	N/A	N/A	Internal corrosion of household pipes; erosion of natural deposits
				90th %	2.2	N/A	N/A	N/A	
Nitrate (as N)	ppm	10	10	Range	0.9	ND	0.1 - 0.6	ND	Runoff & leaching from fertilizer use; erosion of natural deposits
				Average	0.9	ND	0.4	ND	
Selenium	ppb	50	30	Range	ND	ND	6 - 13	11	Erosion of natural deposits; discharge from oil & metal refineries
				Average	ND	ND	8	11	

14 other metals and chemicals were analyzed (including Asbestos, Chromium, Perchlorate, Mercury and Cyanide) none were detected. Copper and Lead were not detected in the water supply.

Parameter	Units	State MCL- MRDL	PHG (MCLG)- MRDLG	Range Average	MWD Jensen Plant 68% of Supply	MWD Weymouth Plant 24% of Supply	Calleguas Las Posas Wellfield 6% of Supply	Calleguas LBWFP 2% of Supply	Potential Major Sources if Detected in Drinking Water
RADIONUCLIDES [f] [analyzed every three years, for four consecutive quarters]									
Gross Alpha Particle Activity	pCi/L	15	(0)	Range Average	ND ND	ND ND	ND - 3.1 ND	ND ND	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50	(0)	Range Average	ND - 5.0 ND	4.0 - 7.0 6.0	ND ND	4.2 4.2	Decay of natural & man-made deposits
Uranium	pCi/L	20	0.43	Range Average	ND - 3.0 ND	1.0 - 3.0 2.0	1.8 - 2.8 2.2	1.4 1.4	Erosion of natural deposits
3 other radionuclides were analyzed - none were detected									
DISINFECTANT RESIDUALS / DISINFECTION BY-PRODUCTS									
Bromate [g]	ppb	10	0.1	Range Highest RAA	ND - 15.0 7.2	ND - 7.6 ND	N/A N/A	ND ND	By-product of drinking water ozonation
Control of DBP Precursors as Total Organic Carbon (TOC)	ppm	TT		Range Highest RAA	1.0 - 1.4 1.5	1.7 - 2.6 2.4	0.9 - 1.0 1.0	1.1 1.1	Various natural and man-made sources; TOC as a medium for formation of DBPs
		MRDL	MRDLG	System- wide	City of Thousand Oaks Results				
Total Chlorine Residual [h]	ppm	4	4	Range Highest RAA	0.90 - 1.95 1.49	N/A N/A	N/A N/A	N/A N/A	Drinking water disinfectant added for treatment
Haloacetic Acids [i] (HAA5)	ppb	60	N/A	Range Highest LRAA	1.4 - 4.5 3.3	N/A N/A	N/A N/A	N/A N/A	By-product of drinking water disinfection
Total Trihalomethanes [i] (TTHM)	ppb	80	N/A	Range Highest LRAA	11 - 22 20	N/A N/A	N/A N/A	N/A N/A	By-product of drinking water disinfection
SECONDARY DRINKING WATER STANDARDS (SDWS) - Aesthetic Standards									
Aluminum [c]	ppb	200	600	Range Average	ND - 81 62	58 - 240 156	ND ND	ND ND	Erosion of natural deposits; residue from water treatment processes
Chloride	ppm	500	N/A	Range Average	67 - 73 70	98 - 105 102	63 - 90 75	105 105	Runoff/leaching from natural deposits; seawater influence
Color	Units	15	N/A	Range Average	1 1	1 1	ND ND	ND ND	Naturally occurring organic materials
Iron	ppb	300		Range Average	ND ND	ND ND	ND - 140 ND	ND ND	Runoff/leaching from natural deposits; industrial wastes
Manganese [j]	ppb	50	NL = 500	Range Average	ND ND	ND ND	ND - 110 ND	ND ND	Leaching from natural deposits
Specific Conductance	µS/cm	1600	N/A	Range Average	557 - 572 564	964 - 1020 992	584 - 716 664	733 733	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	N/A	Range Average	71 - 80 76	212 - 232 222	90 - 133 105	89 89	Runoff/leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	Range Average	332 - 335 334	632 - 643 638	350 - 440 407	390 390	Runoff/leaching from natural deposits
7 other metals and constituents were analyzed - none were detected									
ADDITIONAL PARAMETERS (Unregulated)									
Alkalinity	ppm	NS	NS	Range Average	84 84	126 - 128 127	100 100	120 120	
Boron	ppm	NL=1	NS	Range Average	0.22 0.22	0.14 0.14	0.20 - 0.46 0.30	0.30 0.30	
Calcium	ppm	NS	NS	Range Average	32 - 34 33	68 - 71 70	36 - 53 42.7	39 39	
Chlorate	ppb	NL = 800	NS	Range Average	243 243	88 88	ND - 30 ND	ND ND	
Corrosivity [k]	AI	NS	NS	Range Average	12.1 12.1	12.5 12.5	11.4 - 12.2 11.9	12.2 12.2	
Hardness (Total Hardness)	ppm	NS	NS	Range Average	107 - 110 108	277 - 281 279	127 - 190 160	167 167	108 ppm = 6.25 grains per gallon (gpg) 279 ppm = 16.3 gpg
Magnesium	ppm	NS	NS	Range Average	6.2 - 7.5 6.8	25 - 26 26	9.0 - 16 13	17 17	
N-Nitrosodimethylamine (NDMA)	ppt	NL = 10	3	Range Average	ND ND	ND ND	2.5 - 2.7 2.6	ND ND	
pH	pH units	NS	NS	Range Average	8.2 - 8.3 8.3	8.1 8.1	7.4 - 8.2 7.8	8.1 8.1	
Potassium	ppm	NS	NS	Range Average	2.0 2.0	4.5 - 4.8 4.6	3.0 - 4.0 3.7	4.0 4.0	
Sodium	ppm	NS	NS	Range Average	71 - 72 72	98 - 103 100	58 - 78 70	89 89	
Total Organic Carbon	ppm	TT		Range Average	1.0 - 1.4 1.5	1.7 - 2.6 2.4	0.9 - 1.0 1.0	1.1 1.1	
Vanadium	ppb	NL = 50	NS	Range Average	6.2 6.2	ND ND	3.0 - 4.0 3.5	ND ND	
5 other constituents and metals were analyzed including Radon - none were detected									
Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) List (Unregulated) [l]									
Perfluoropentanoic acid (PFPeA)	ppt	NS	NS	Range Average	ND ND	2.0 2.0	N/A N/A	N/A N/A	
28 other PFAS constituents were analyzed - none were detected									

WATER QUALITY DATA

Abbreviations, Definitions and Notes

AI = Aggressiveness Index.

AL = Federal Regulatory Action Level = The level of contaminant which when exceeded, triggers treatment or other requirements that a water system must follow.

DBP = Disinfection By-Product

LBWFP = Lake Bard Water Filtration Plant.

LRAA = Locational Running Annual Average

MCL = 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.

MCLG = 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).

MRDL = 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.

MRDLG = 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.

MWD = Metropolitan Water District.

N/A = Not Applicable

ND = None Detected. Detection Limits for the purposes of reporting (DLRs) available on request.

NL = Notification Level

NS = No Standard

NTU = Nephelometric Turbidity Units.

pCi/L = Picocuries per liter (units to measure radiation).

PHG = 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).

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

ppb = parts per billion, or micrograms per Liter ($\mu\text{g/L}$), equivalent to 1 drop of water in a standard swimming pool (13,208 gallons).

ppm = parts per million, or milligrams per liter (mg/L), equivalent to 1 drop of water in a aquarium (13.2 gallons).

ppt = parts per trillion, or nanograms per Liter (ng/L), equivalent to 1 drop of water in 20 olympic swimming pools (13,208,000 gallons).

RAA = Running Annual Average

Secondary Drinking Water Standards (SDWS) = MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect health at the MCL levels.

TON = Threshold Odor Number

TT = Standards are Treatment Techniques for contaminants with which MWD and Calleguas are in compliance.

$\mu\text{S/cm}$ = 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 the filtration system.
- [b] The City's water was in compliance with both the State Total Coliform Rule and the Federal Revised Total Coliform Rule. Over 1,000 samples were analyzed in 2022 for Total Coliform and E. Coli.
- [c] Aluminum has both primary and secondary standards. Compliance with the MCL is based on a running annual average. The secondary standard MCL was not exceeded.
- [d] Lead and Copper are sampled at the customer's tap every (3) years. Last event was conducted in 2022 and scheduled to occur again in 2025. 35 samples were collected and the 90th percentile was reported above. No samples exceeded the AL for Lead and Copper.
- [e] MWD initiated a Fluoride Optimization Program in 2007. See text for further detail.
- [f] The MWD's results are from 2020, part of a 4-quarter radiological monitoring program. Calleguas conducts radiological monitoring annually. Water utilities are required to make these surveys every three years.
- [g] Compliance for treatment plants that use ozone is based on a running annual average of monthly samples, which was in compliance in 2022.
- [h] Total chlorine residual measures the concentration of chloramines (5 parts chlorine and 1 part ammonia) that are added as a disinfectant system-wide.
- [i] Compliance was based on the LRAA of data collected at distribution system-wide monitoring locations. The range of all samples collected is included.
- [j] Compliance for manganese is based on a running annual average. Due to emergency drought conditions, Calleguas operated the Las Posas Wellfield as an extraordinary water supply measure to conserve MWD's limited State Project Water supplies in 2022. The MCL was not violated.
- [k] AI measures the aggressiveness of water transported through pipes. AI <10 is highly corrosive to water system materials. AI at 12 or above indicates non-aggressive water.
- [l] Consumer confidence report (CCR) detection limits are based on method detection limit for the EPA 533 Method. Results below CCR detection limits are considered ND. PFAS results below CCR detection limits but above reporting limits are included in this report.

www.toaks.org/waterqualityreport