Consumer Confidence Report

Data for January 1, 2022
through December 31, 2022

OLIVENHAIN
Municipal Water District

An Annual Drinking Water Quality Report
Published June 2023

OLIVENHAIN
Municipal Water District

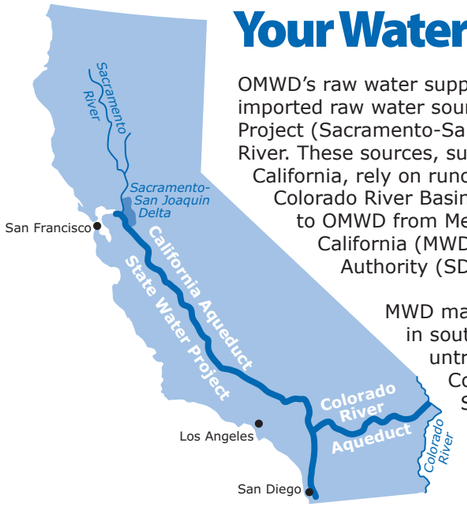
A Public Agency Providing
Water
Wastewater Services
Recycled Water
Hydroelectricity
Elfin Forest Recreational Reserve

Olivenhain Municipal Water District is required by law to distribute a Consumer Confidence Report each year.

This report explains how drinking water provided by OMWD meets or exceeds all state and federal water quality standards for your drinking water. Included within are an explanation of where your water comes from, results of water quality tests, and tips on how to interpret the data. The data presented is for January 1, 2022 through December 31, 2022. We are proud to share our results with you.

Pure Excellence

Your Water Sources



OMWD's raw water supply in 2022 was 100% imported. The imported raw water sources are the California State Water Project (Sacramento-San Joaquin Delta) and the Colorado River. These sources, supplying water to all of Southern California, rely on runoff from the Sierra snowpack and the Colorado River Basin. Both of these supplies are provided to OMWD from Metropolitan Water District of Southern California (MWD) and San Diego County Water Authority (SDCWA).

MWD maintains Lake Skinner, located in southwest Riverside County, as the untreated raw water source for San Diego County. Before water from the Lake Skinner source is delivered to you, it is treated to remove pollutants and bacteria. OMWD delivers water to your home or business that has been treated at its David C. McCollom Water Treatment Plant (DCMWTP).

David C. McCollom Water Treatment Plant

In 2022, approximately 92.16% of the water delivered to OMWD customers was treated locally at DCMWTP. The raw water received at DCMWTP is a blend of water from the Colorado River and the State Water Project. This raw water is obtained from SDCWA, which purchases it from MWD. The remaining percentage of treated water delivered to OMWD customers was purchased from SDCWA and treated at either the Twin Oaks Valley Water Treatment Plant or the Claude "Bud" Lewis Carlsbad Desalination Plant.

DCMWTP is located within the northeastern portion of OMWD's service area and uses membrane technology to produce superior quality finished water. The membrane process uses fewer chemicals than conventional treatment, and offers improved barriers against pathogens, such as *Cryptosporidium*, viruses, and bacteria, such as coliform. Public tours of DCMWTP may be available; visit **www.olivenhain.com/events** for details.

David C. McCollom Water Treatment Plant

What Is In My Water?

The tables on the following pages show how water quality for OWMD met health-related standards in 2022. The tables also show data specific to the treated water that flows through OMWD's distribution system, and where noted, raw water quality from the Lake Skinner water source. For information on the Lake Skinner source water and a source water assessment, please contact Paul Rochelle with MWD at **909-392-5155** or **prochelle@mwdh2o.com**. For information on SDCWA's water treatment plants, including the Twin Oaks Valley Water Treatment Plant or the Claude "Bud" Lewis Carlsbad Desalination Plant, please contact Chris Castaing with SDCWA at **760-233-3279** or **ccastaing@sdcwa.org**, or visit SDCWA's website at w**ww.sdcwa.org/water-quality**. For more information on OMWD's DCMWTP or distribution system, please contact OMWD's Operations Manager at **760-753-6466** or **waterquality@olivenhain.com**.

How Do Contaminants Get in the Water?

The raw sources of drinking water (both tap and bottled water alike) 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. It can also pick up substances resulting from the presence of animals and/or from human activity. Contaminants that may be present in raw source water include:

- **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 resulting from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems
- **Radioactive contaminants**, which can be naturally 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 US Environmental Protection Agency (USEPA) and California's State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that provide similar protection for public health.

What About Lead and Copper?

OMWD is required to test every three years for lead and copper. OMWD tested for lead and copper in 2022; 31 locations were sampled, and the results, which were well below regulatory action levels, are provided in the table on page 6. Additional information about lead and copper is available at **www.olivenhain.com/leadandcopper** and from the USEPA Safe Drinking Water Hotline, **800-426-4791**.

In compliance with the SWRCB Drinking Water Permit Amendment 2017PA-SCHOOLS and Assembly Bill 746 (2017), OMWD tested seven school locations for lead in 2017, six schools in 2018, and one school performed lead testing in 2019. The action level of 15 ppb was not exceeded at any location. No schools requested testing in 2020, 2021, or 2022. Customers can request school lead testing results by contacting the Division of Drinking Water at **DDW-PLU@waterboards.ca.gov** or **916-322-9602**.

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. OMWD is responsible for providing high-quality drinking water, but cannot control the variety of materials used in home 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 two 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 USEPA Safe Drinking Water Hotline, **800-426-4791**, or at **www.epa.gov/safewater/lead**.

Important Health Information

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 USEPA's Safe Drinking Water Hotline, **800-426-4791**.

The trace contaminants found in OMWD's water sources, along with their standards, are listed in the tables found in this report. It is important to note that drinking water standards are based on research to protect the general public and may not be sufficient to protect certain persons, as noted below.

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, as well as some elderly and infants can be particularly at risk for infections. These people should seek advice from their health care providers about drinking water. USEPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline, **800-426-4791**.

Water Quality Data

Parameter	Units	State or Federal MCL	PHG (RDLG)	State DLR	OMWD's DCMWTP[a] Range	OMWD's DCMWTP[a] Average	Major Sources in Drinking Water
COMPLIANCE MONITORING							
INORGANIC CHEMICALS							
Arsenic (naturally occurring)	ppb	10	0.004	2	2.6	2.6	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium	ppm	1	2	0.1	0.11	0.11	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (naturally occurring)	ppm	2.0	1	0.1	0.25–0.35	0.31	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Fluoride (treatment-related)	ppm	2.0	1	0.1	0.32–0.84	0.69	Water additive that promotes strong teeth
RADIOLOGICALS							
Uranium	pCi/L	20	0.43	1	2.3	2.3	Erosion of natural deposits
CLARITY							
Combined Filter Effluent Turbidity[b]	NTU	TT=1 NTU	NA	NA	Highest 0.079	% ≤ 0.3 100%	Erosion of natural deposits; soil runoff
SECONDARY STANDARDS – Aesthetic Standards[c]							
Chloride	ppm	500	NA	NA	100	100	Runoff/leaching from natural deposits; seawater influence
Color[a][d]	Color Units	15	NA	NA	3	3	Naturally occurring organic materials
Odor Threshold[a][d]	TON	3	NA	1	10	10	Naturally occurring organic materials
Specific Conductance	µS/cm	1,600	NA	NA	910	910	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	0.5	210	210	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)[a]	ppm	1,000	NA	NA	534–641	588	Runoff/leaching from natural deposits
Turbidity[a][d]	NTU	5	NA	0.1	1.0–7.0	4.0	Soil runoff
OTHER PARAMETERS							
Alkalinity (as $CaCO_3$)	ppm	NA	NA	NA	120	120	Runoff/leaching of natural deposits; carbonate, bicarbonate, hydroxide, and occasionally borate, silicate, and phosphate
Calcium	ppm	NA	NA	NA	69	69	Runoff/leaching from natural deposits
Chromium, Hexavalent	ppb	NA	0.02	NA	0.045	0.045	Runoff/leaching from natural deposits; discharge from industrial waste factories
Hardness (as $CaCO_3$)[a]	ppm	NA	NA	NA	249–285	267	Runoff/leaching from natural deposits; sum of polyvalent cations, generally magnesium and calcium present in the water
Magnesium	ppm	NA	NA	NA	25	25	Runoff/leaching from natural deposits
pH[a]	pH Units	NA	NA	NA	8.20	8.20	Inherent characteristic of water, naturally occuring
Potassium	ppm	NA	NA	NA	5.2	5.2	Salt present in the water; naturally occurring
Silica	ppm	NA	NA	NA	7.4	7.4	Naturally occurring
Sodium	ppm	NA	NA	NA	100	100	Salt present in the water; naturally occurring
Total Organic Carbon (TOC)	ppm	TT	NA	0.30	2.0	2.0	Various natural and man-made sources; TOC is a precursor for the formation of disinfection by-products

See page 6 for Footnotes

Abbreviations & Definitions

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

Average – Result based on arithmetic mean

$CaCO_3$ – Calcium Carbonate

DCMWTP – David C. McCollom Water Treatment Plant

DLR – Detection Limits (for purposes of) Reporting

HAA5 – Haloacetic Acids (five)

LRAA – Locational Running Annual Average – *The highest LRAA is the highest of all Locational Running Annual Averages calculated as average of all samples collected within a 12-month period.*

MCL – Maximum Contaminant Level – *The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close as the PHGs 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 a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the US Environmental Protection Agency.*

MRDL – Maximum Residual Disinfectant Level

MRDLG – Maximum Residual Disinfectant Level Goal

MWD – Metropolitan Water District of Southern California

NA – Not Applicable

ND – Not Detected

NTU – Nephelometric Turbidity Units

pCi/L – Picocuries per Liter

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 Environmental Protection Agency.*

ppb – Parts per billion or micrograms per liter

ppm – Parts per million or milligrams per liter

RAA – Running Annual Average – *The highest RAA is the highest of all Running Annual Averages calculated as average of all the samples collected within a 12-month period.*

Range – Results based on minimum and maximum values

SDCWA – San Diego County Water Authority

SWRCB – State Water Resources Control Board

TDS – Total Dissolved Solids

TOC – Total Organic Carbon

TON – Threshold Odor Number

TT – Treatment Technique *is a required process intended to reduce the level of a contaminant in drinking water and does not refer to any range of values.*

TTHM – Total Trihalomethanes

USEPA – US Environmental Protection Agency

µS/cm – Microsiemens per centimeter; or micromhos per centimeter (µmho/cm)

Water Quality Data

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDL]	State DLR	OMWD's Distribution System Range	OMWD's Distribution System Average	Major Sources in Drinking Water
PRIMARY STANDARDS – Mandatory Health-Related Standards							
MICROBIOLOGICAL							
E. coli (Acute Total Coliform)[e]	NA	0[e]	(0)	NA	ND	ND	Human and animal fecal waste
Total Coliform Bacteria[f]	NA	TT	NA	NA	ND	ND	Naturally present in the environment
DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS							
Haloacetic Acids (five) (HAA5)[g]	ppb	60	NA	1	5.9–10	Highest LRAA 8.9	By-product of drinking water chlorination
Total Chlorine Residual	ppm	[4.0]	[4.0]	NA	0.77–3.29	Highest RAA 2.36	Drinking water disinfectant added for treatment
Total Trihalomethanes (TTHM)[g]	ppb	80	NA	1	24.0–41.0	Highest LRAA 32	By-product of drinking water chlorination
INORGANIC CHEMICALS							
Copper[h] 2022	ppm	AL=1.3	0.3	0.05	0.027–0.656	90th Percentile 0.417	Internal corrosion of plumbing systems; erosion of natural deposits
Lead[h] 2022	ppb	AL=15	0.2	5	ND–6	90th Percentile 2	Internal corrosion of plumbing systems; erosion of natural deposits
SECONDARY STANDARDS – Aesthetic Standards							
Color	Color Units	15	NA	NA	ND–1.0	0.05	Naturally occurring organic materials
Odor Threshold	TON	3	NA	1	ND	ND	Naturally occurring organic materials
Turbidity[c]	NTU	5	NA	NA	0.05–0.3	0.06	Soil runoff

Footnotes

[a] Treated Effluent data from DCMWTP samples collected during January-December 2022, representing water supplied to the public. OMWD has also been granted the use of MWD source water data from Lake Skinner for compliance and reporting purposes by the SWRCB. Color, Odor Threshold, Turbidity, Total Dissolved Solids, Hardness, and pH data are source water data from Lake Skinner.

[b] Turbidity, a measure of the cloudiness of the water, is an indicator of treatment performance. As a Treatment Technique Standard, OMWD turbidity levels from the Combined Filter Effluent of the membranes were less than or equal to 0.1 NTU in 95% of the measurements taken each month and did not exceed 1.0 NTU at any time. OMWD collected 386 distribution samples; the system was in compliance with the Secondary Standard.

[c] State Secondary Standards for turbidity apply to water supplied to the public by community water systems; annual monitoring is required for approved surface water sources or distribution system entry points of the effluent of source water treatment.

[d] Color, Odor Threshold, and Turbidity data in the table on page 4 are source water data from Lake Skinner and are not representative of treated water effluent at DCMWTP. Color, Odor Threshold, and Turbidity data are also collected in OMWD's distribution system and results were in compliance with the Secondary Standard. Distribution system Color, Odor Threshold, and Turbidity results are summarized in OMWD's Distribution System Water Quality table above.

[e] *E. coli*-positive sample triggers MCL violation. *E. coli* MCL violation triggers Level 2 TT assessments. No samples were *E. coli*-positive and no Level 2 assessments were required.

[f] More than 5.0% total coliform-positive samples in a month triggers Level 1 assessments. No Level 1 assessments or violations occurred.

[g] TTHM and HAA5 results for OMWD's distribution system are provided. OMWD was in compliance with all provisions of the Stage 2 Disinfectants/Disinfection By-Products Rule based on the Highest LRAA.

[h] Lead and Copper are regulated as a Treatment Technique under the Lead and Copper Rule, which requires water samples to be collected at the consumers' taps. OMWD is required to test every three years for Lead and Copper. If action levels are exceeded in more than 10% of consumer tap samples, water systems must take steps to reduce these contaminants. OMWD collected samples at 30 locations in 2022; results are provided.

See page 5 for Abbreviations and Definitions

About OMWD

OMWD is a municipal water district organized and operating pursuant to Water Code Sections 71000 et seq., and was incorporated on April 9, 1959 to develop an adequate water supply for landowners and residents. On June 14, 1960, residents of OMWD voted to become a member of SDCWA, thus becoming eligible to purchase water transported into San Diego County via the aqueduct systems of SDCWA and MWD. At over 48 square miles, OMWD serves approximately 87,000 customers in Encinitas, Carlsbad, San Diego, Solana Beach, and neighboring communities.

We Encourage You to Get Involved

OMWD is governed by a five-member Board of Directors elected for staggered four-year terms, with each director being elected from a specific geographic area of OMWD's service area. Board members encourage public participation in decisions affecting our community's drinking water and any other water related issues. The public is welcome to attend board meetings. Please check OMWD's website at **www.olivenhain.com/meetings** for current information, as dates and times of board meetings vary.

For Additional Information

For more information on this report, contact OMWD's Operations Manager at **760-753-6466** or **waterquality@olivenhain.com**.

*Este informe contiene información muy importante sobre su agua potable. Si tiene preguntas, llame al **760-753-6466**.*

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Published by Olivenhain Municipal Water District in the interest of an informed public.

Board Meeting Dates
Please visit our website at **www.olivenhain.com/meetings** for dates.

Mission Statement
Olivenhain Municipal Water District is a multi-functioning public agency that is dedicated and committed to serving present and future customers in a service-oriented manner by:

Water
Providing safe, reliable, high-quality drinking water while exceeding all regulatory requirements in a cost-effective and environmentally responsive manner.

Recycled Water
Providing recycled water and wastewater treatment in the most cost-effective and environmentally responsive method.

Parks
Safely operating the Elfin Forest Recreational Reserve and providing all users with a unique recreational, educational, and environmental experience.

Emergency Management
Complying with policies and procedures that adhere to local, state, and federal guidelines for national security and disaster preparedness.

Sustainable Operations
Pursuing alternative and/or renewable resources with the most sustainable, efficient, and cost-effective approach.

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