OLIVENHAIN
Municipal Water District
A Public Agency

Consumer Confidence Report

Data for January 1, 2020
through December 31, 2020

An Annual Drinking Water Quality Report

Published June 2021

OLIVENHAIN
Municipal Water District

A Public Agency Providing

Water

Wastewater Services

Recycled Water

Hydroelectricity

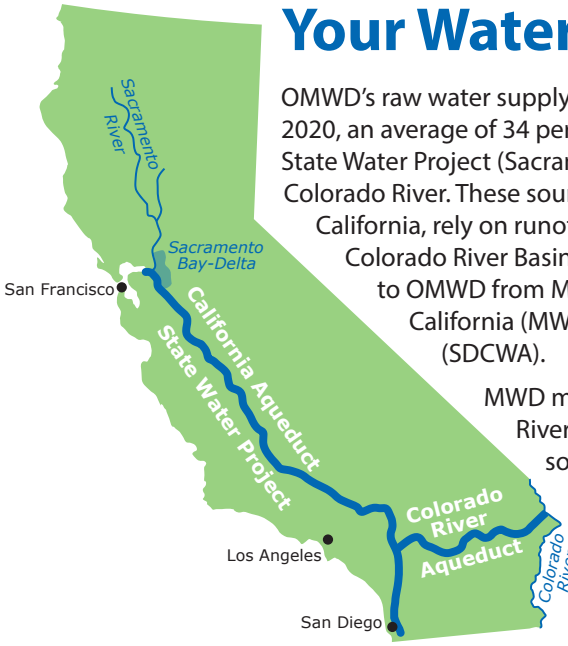
Elfin Forest Recreational Reserve

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, 2020 through December 31, 2020, and includes earlier monitoring data for lead and copper, which OMWD is required to test every three years. We are proud to share our results with you.

Pure Excellence

Your Water Sources



OMWD's raw water supply in 2020 was 100 percent imported. In 2020, an average of 34 percent was received from the California State Water Project (Sacramento Bay-Delta), and 66 percent from 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 2020, approximately 98.59 percent 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.

What is In My Water?

The tables on the following pages show how the raw water quality from the Lake Skinner water source met health-related standards in 2020. The tables also show data specific to the treated water that flows through OMWD's distribution system. For information on the Lake Skinner source water and a source water assessment, please contact Mic Stewart with MWD at **213-217-5696** or **mstewart@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 **www.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, and can 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 result 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 2019; 31 locations were sampled, 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. Customers can request school lead testing results by contacting California's 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 about drinking water from their health care providers. 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**.

Raw Source Water Data

Parameter	Units	State or Federal MCL	PHG (MCLG)	State DLR	Lake Skinner Range	Lake Skinner Average
SOURCE WATER DATA COMPLIANCE MONITORING [a]						
INORGANIC CHEMICALS						
Fluoride (naturally occurring)	ppm	2.0	1	0.1	0.2 - 0.3	0.2
Arsenic (naturally occurring)	ppb	10	0.004	2	2.1	2.1
RADIOLOGICALS						
Gross Alpha Particle Activity	pCi/L	15	(0)	3	ND - 3.0	ND
Gross Beta Particle Activity	pCi/L	50	(0)	4	ND - 5.5	ND
Radium - 228	pCi/L	NA	0.019	1	ND - 1.0	ND
Uranium	pCi/L	20	0.43	1	1.4 - 2.6	1.9
SECONDARY STANDARDS – Aesthetic Standards [b]						
Color	Color Units	15	NA	NA	3	3
Odor Threshold	TON	3	NA	1	7	7
Chloride	ppm	500	NA	NA	77 - 88	82
Specific Conductance	µS/cm	1,600	NA	NA	728 - 907	818
Sulfate	ppm	500	NA	0.5	142 - 199	170
Total Dissolved Solids (TDS)	ppm	1,000	NA	NA	446 - 571	508
Turbidity	NTU	5	NA	0.1	0.6 - 0.7	0.7
OTHER PARAMETERS						
MICROBIOLOGICAL						
Total Coliform Bacteria	MPN/100 mL	NA	NA	NA	40 - 20,000	440
E. coli	MPN/100 mL	NA	NA	NA	ND - 7	1
General Minerals						
Alkalinity (as $CaCO_3$)	ppm	NA	NA	NA	110 - 129	120
Calcium	ppm	NA	NA	NA	49 - 68	58
Hardness (as $CaCO_3$)	ppm	NA	NA	NA	196 - 252	224
Magnesium	ppm	NA	NA	NA	19 - 25	22
Sodium	ppm	NA	NA	NA	70 - 88	79
Potassium	ppm	NA	NA	NA	3.8 - 4.6	4.2
Unregulated Contaminants						
Boron	ppb	NL = 1,000	NA	100	130	130
Miscellaneous						
pH	pH Units	NA	NA	NA	8.1 - 8.2	8.2
Total Organic Carbon (TOC)	ppm	TT	NA	0.30	3.0 - 3.2	3.1

Footnotes

(a) Data is from samples collected during January-December 2020. OMWD has been granted the use of MWD source water data from Lake Skinner for compliance and reporting purposes by the SWRCB.

(b) State Secondary Standards 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.

(c) Turbidity, a measure of the cloudiness of the water, is an indicator of treatment performance. As a Treatment Technique Standard, for OMWD the 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 328 distribution system samples and the system was in compliance with the Secondary Standard.

(d) For each day of operation at DCMWTP, the plant effluent must be analyzed for Total Coliform Bacteria and *E. coli*. Test results are either present or absent, and there was no presence of Total Coliform Bacteria or *E. coli* in any test performed at DCMWTP.

(e) State Total Coliform Rule (TCR) - No more than 5.0% total coliform-positive samples in a month: For OMWD, 1,257 samples were analyzed. Three samples were positive for total coliform. Repeat samples were negative. The MCL was not violated.

Federal Revised Total Coliform Rule (rTCR) - More than 5.0% total coliform-positive samples in a month triggers Level 1 assessments. For OMWD, no Level 1 assessments or violations occurred.

(f) Federal rTCR *E. coli* MCL - Violation triggers Level 2 TT assessments. For OMWD, there were no *E. coli*-positive samples and no Level 2 TT assessments were required.

(g) In 2020, all OMWD distribution system samples collected had detectable Total Chlorine Residuals and no HPC testing was required. OMWD voluntarily tested for HPC in its distribution system 367 times and the range and average is provided.

(h) 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.

Percent of Total Supply from State Project Water Lake Skinner	
Range = 0% - 82%	Average = 34%

Erosion of natural deposits; discharge from fertilizer and aluminum factories	
Erosion of natural deposits; glass and electronics production wastes	
Erosion of natural deposits	
Decay of natural and manmade deposits	
Erosion of natural deposits	
Erosion of natural deposits	
Naturally occurring organic materials	
Naturally occurring organic materials	
Runoff/leaching from natural deposits; seawater influence	
Substances that form ions in water; seawater influence	
Runoff/leaching from natural deposits; industrial wastes	
Runoff/leaching from natural deposits	
Soil runoff	
Naturally present in the environment	
Human and animal fecal waste	
Runoff/leaching of natural deposits; carbonate, bicarbonate, hydroxide, and occasionally borate, silicate, and phosphate	
Runoff/leaching from natural deposits	
Runoff/leaching from natural deposits; sum of polyvalent cations, generally magnesium and calcium present in the water	
Runoff/leaching from natural deposits	
Salt present in the water, naturally occurring	
Salt present in the water, naturally occurring	
Runoff/leaching from natural deposits; industrial wastes	
Naturally occurring	
Various natural and manmade sources; TOC is a precursor for the formation of disinfection by-products.	

(i) Lead and copper are regulated as a TT under the Lead and Copper Rule, which requires water samples to be collected at the consumers' tap. OMWD is required to test every three years for lead and copper. If action levels are exceeded in more than 10% of the consumer tap samples, water systems must take steps to reduce these contaminants. OMWD collected samples at 31 locations in 2019; results are provided.

(j) In compliance with the SWRCB Permit Amendment 2017PA-SCHOOLS and Assembly Bill 746 (2017), lead testing was performed at seven school locations in 2017, six in 2018, and one school in 2019. The action level of 15 ppb was not exceeded at any location. No schools requested testing in 2020.

Abbreviations & Definitions

AL – Action Level (90th percentile)

Average – Result based on arithmetic mean

$CaCO_3$ – Calcium Carbonate

CFU – Colony-Forming Units

DLR – Detection Limits (for purposes of) Reporting

HAA5 – Haloacetic Acids (five)

HPC – Heterotrophic Plate Count

L – Liter

LRAA – Locational Running Annual Average; 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 to 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.

mL – Milliliter

MPN – Most Probable Number

MWD – Metropolitan Water District of Southern California

NA – Not Applicable

ND – Not Detected

NL – Notification Level to the SWRCB

NTU – Nephelometric Turbidity Units

oocysts – Measurement of coccidian parasites shed in the feces of infected people

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 (µg/L)

ppm – Parts per million or milligrams per liter (mg/L)

RAA – Running Annual Average; 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

rTCR – Revised Total Coliform Rule

SDCWA – San Diego County Water Authority

SWRCB – California's State Water Resources Control Board

TCR – Total Coliform Rule

TTHM – Total Trihalomethanes

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

USEPA – US Environmental Protection Agency

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

Treated Water Data

Parameter	Units	State or Federal MCL	PHG (MCLG)	State DLR	OMWD's DCMWTP Range	OMWD's DCMWTP Average	
PRIMARY STANDARDS - Mandatory Health-Related Standards							
CLARITY							
Combined Filter Effluent Turbidity [c]	NTU	TT = 1 NTU	NA	NA	0.011 - 0.11	0.021	Soil runoff
MICROBIOLOGICAL							
Total Coliform Bacteria	(d)	NA	(0)	NA	ND	ND	Naturally present in the environment
E. coli	(d)	NA	(0)	NA	ND	ND	Human and animal fecal waste
Cryptosporidium	oocysts/ 200 L	NA	(0)	NA	TT	TT	Human and animal fecal waste
Giardia	oocysts/ 200 L	NA	(0)	NA	TT	TT	Human and animal fecal waste
INORGANIC CHEMICALS							
Fluoride Treatment-Related	ppm	2.0	1	0.1	0.63 - 0.83	0.74	Water additive that promotes strong teeth

Parameter	Units	State or Federal MCL	PHG (MCLG)	State DLR	Distribution System Range	Distribution System Average	
PRIMARY STANDARDS - Mandatory Health-Related Standards							
MICROBIOLOGICAL							
Total Coliform Bacteria [e]	%	5.0	(0)	NA	ND - 1.96	ND	Naturally present in the environment
E. coli (Acute Total Coliform)	(f)	(f)	(0)	NA	ND	ND	Human and animal fecal waste
Heterotrophic Plate Count (HPC) [g]	CFU/mL	TT	NA	NA	ND - 37	.78	Naturally present in the environment
DISINFECTION BY-PRODUCTS & DISINFECTANT RESIDUALS							
Total Trihalomethanes (TTHM) [h]	ppb	80	NA	1	26.0 - 54.0	Highest LRAA 53	By-product of drinking water chlorination
Haloacetic Acids (five) (HAA5) [h]	ppb	60	NA	1	4.3 - 12.0	Highest LRAA 17	By-product of drinking water chlorination
Total Chlorine Residual	ppm	4.0	4.0	NA	.77 - 3.10	Highest RAA 2.47	Drinking water disinfectant added for treatment
INORGANIC CHEMICALS							
Copper [i] 2019	ppm	AL=1.3	.03	0.05	0.022 - 0.425	90th Percentile 0.284	Internal corrosion of plumbing systems; erosion of natural deposits
Lead [i] 2019	ppb	AL=15	0.2	5	ND - 23.7	90th Percentile ND	Internal corrosion of plumbing systems; erosion of natural deposits
School Lead Testing [j] 2017	ppb	AL=15	0.2	5	ND	NA	Internal corrosion of plumbing systems; erosion of natural deposits
SECONDARY STANDARDS - Aesthetic Standards							
Color	Units	15	NA	NA	ND - 3.0	.24	Naturally occurring organic materials
Odor Threshold	TON	3	NA	1	ND	ND	Naturally occurring organic materials
Turbidity [c]	NTU	5	NA	NA	0.05 - 0.4	0.07	Soil runoff

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.

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. Tradúzcalo o hable con alguien que lo entienda bien. Si tiene preguntas, llame al **760-753-6466**.

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.

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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** 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 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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