

# 2021

## DRINKING WATER QUALITY REPORT



**Yorba Linda  
Water District**



Yorba Linda's water quality  
is equal to or better than  
what is required to safeguard  
public health.



# Your 2021 Water Quality Report

Since 1990, California public water utilities have been providing annual Water Quality Reports to their customers. **This year's report**, also known as the "Consumer Confidence Report," **covers water quality testing from January to December 2020**, unless otherwise specified.

The Yorba Linda Water District's (District) annual Water Quality Report is prepared in compliance with the regulations called for in the 1996 reauthorization of the Safe Drinking Water Act (SDWA). The reauthorization charged the United States Environmental Protection Agency (USEPA) with updating and strengthening the tap water regulatory program. USEPA and the State Water Resources Control Board, Division of Drinking Water (DDW) are the agencies responsible for establishing water quality standards.

To ensure that your tap water is safe to drink, USEPA and DDW prescribe regulations that limit the amount of certain contaminants in water provided by water systems.

The State and Federal governments require that this annual Water Quality Report be provided to every customer to insure you are informed of the quality of your water. The District is committed to safeguarding its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies.

In 2020, we conducted over 23,000 analyses to ensure that your water is clean and safe to drink. We are proud to report that our water system has never violated any water quality standard from both the State and Federal drinking water regulations. In some cases, the District goes beyond what is required by providing additional monitoring for contaminants that may have health risks.

We encourage you to read this report and to contact us with any questions you may have.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

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

这份报告中有些重要的信息，讲到关于您所在社区的水的品质。请您找人翻译一下，或者请能看得懂这份报告的朋友给您解释一下。



## Quality Water is Our Priority

Turn the tap and the water flows, as if by magic. Or so it seems. The reality is considerably different, however. Delivering high-quality drinking water to our customers is a scientific and engineering feat that requires considerable effort and talent to ensure the water is always there, always safe to drink.



Because tap water is highly regulated by state and federal laws, water treatment and distribution operators must be licensed and are required to complete on-the-job training and technical education before becoming a state certified operator.

Our licensed water professionals have an understanding of a wide range of subjects, including mathematics, biology, chemistry, physics, and engineering. Some of the tasks they complete on a regular basis include:

- ◆ Operating and maintaining equipment to purify and clarify water;
- ◆ Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- ◆ Conducting tests and inspections on water and evaluating the results;
- ◆ Documenting and reporting test results and system operations to regulatory agencies; and
- ◆ Serving our community through customer support, education, and outreach.

So, the next time you turn on your faucet, think of the skilled professionals who stand behind every drop.

# Constant Monitoring Ensures Continued Excellence

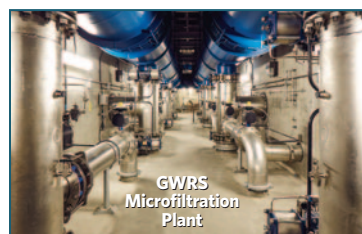
## Introduction

Through drinking water quality testing programs carried out by the Orange County Water District (OCWD) for groundwater, Metropolitan Water District of Southern California (MWD) for treated surface water, and the District for the water distribution system, your drinking water is constantly monitored from source to tap for constituents that are regulated and unregulated.

## Sources of Supply

The District's water supply consists of groundwater from the Orange County groundwater basin and water imported from Northern California and the Colorado River by the Metropolitan Water District of Southern California (MWD).

The Orange County groundwater basin is a natural aquifer that is replenished with water from the Santa Ana River, local rainfall, imported water, and through the Groundwater Replenishment System (GWRS). The GWRS is a three step process where the Orange County Water District takes highly treated wastewater from the Orange County Sanitation District and purifies the water through a state-of-the-art purification process consisting of microfiltration, reverse osmosis, and ultraviolet light with hydrogen peroxide. This near-distilled-quality water is then transported to percolation basins where the GWRS water naturally filters through sand and gravel to the



groundwater basin managed by the Orange County Water District.

The groundwater basin is approximately 350 square miles in area and lies beneath most of northern and central

Orange County. The Yorba Linda Water District and more than 20 cities and retail water districts pump from the groundwater basin to provide water to homes and businesses. Your water source depends on where you live or work within the boundaries of our community.

Having multiple sources of water is beneficial for the District's customers.

Local groundwater meets all water quality standards and is lower in cost than imported water, which must travel hundreds of miles through aqueduct systems. Having more than one source also improves the overall reliability of our water supply.

To find out which water source is provided to your home or business, please call the District's main line.



## Local Groundwater (*Chlorine Disinfection*)

In Calendar Year 2020, the District obtained approximately 58% of its water supply from groundwater, utilizing its 10 wells. The water from these wells is blended at the Highland Reservoir before being served to customers.

The District uses chlorine to disinfect the groundwater as it enters the distribution system.

## Imported Water (*Chloramine Disinfection*)

The District obtains the remainder of the water from local wholesaler Municipal Water District of Orange County (MWDOC). MWDOC obtains water from regional supplier Metropolitan Water District of Southern California (MWD). MWD imports water from Northern California via the California Aqueduct, and from the Colorado River via the Colorado River Aqueduct. This water is treated at MWD's Robert B. Diemer water treatment plant located just north of western Yorba Linda to meet drinking water standards.

MWD treats the water to meet drinking water standards and disinfects the water with chloramines, a combination of chlorine and ammonia.

## The Source of Your Water Can Change Throughout the Year

In order to maximize the delivery of groundwater, we may change our operating dynamics which would result in a source water change from import water to groundwater at different times throughout the year. Since the water sources may vary, you may notice a difference in the taste or hardness (mineral content) of the water. However, none of these factors affect the quality and safety of your water.

## We Invite You to Learn More About Your Water's Quality

Anaheim, Brea, Placentia and unincorporated Orange County.

The Yorba Linda Water District Board of Directors' regularly scheduled meetings are held on the second and fourth Tuesday of each month at 6:30 p.m. in the District boardroom located at 1717 E. Miraloma Avenue, Placentia, California 92870.

For more information about the District or your water service, please visit our website at [www.ylwd.com](http://www.ylwd.com) or call (714) 701-3000.

Yorba Linda Water District is an independent special district that provides water and sewer service to most of the City of Yorba Linda and to portions of



# We Comply with All State & Federal Water Quality Regulations

## Basic Information About Drinking Water Contaminants

The sources of drinking water (both public tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals. Water also picks up substances resulting from the presence of animals or from human activity. 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 (1-800-426-4791).

Contaminants that may be present in source water include:

- ♦ **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. *Cryptosporidium* is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal maladies. The organism comes from animal and/or human waste and may be found in surface (imported) water. A standard treatment process that includes sedimentation, filtration, and disinfection can eliminate *Cryptosporidium* contamination.
- ♦ **Pesticides and herbicides** that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- ♦ **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.



- ♦ **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 storm water runoff, agricultural application and septic systems.

- ♦ **Radioactive contaminants** that can be naturally occurring or be the result of oil and gas production and mining activities.

## Special Risk Populations

Some individuals may be more vulnerable to the effects of possible contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, some elderly persons, infants, persons infected with HIV/AIDS, or persons with other immune system disorders can be particularly at risk to infection. These persons should seek advice from their health care providers about drinking water.

The USEPA/Center for Disease Control guidelines on appropriate means to lessen the risks of infection by *Cryptosporidium* or other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

## Fluoride

The District does not add fluoride to its groundwater supplies. Naturally occurring fluoride is present in the aquifer.

In 1995, the California Legislature passed a bill mandating that all large water agencies fluoridate their supplies, but only if the state or "somebody" provided the agencies with the funds to do so. To date, the state has not come up with the funds to implement fluoridation.



MWD commenced fluoridation of the drinking water it supplies to Southern California in November of 2007. In Calendar Year 2020, the District purchased approximately 42% of its water from MWD. Because of MWD's decision and the District's dual sources of water (groundwater and import), the District is faced with a situation where some of its customers will receive water fluoridated by MWD, some will receive non-fluoridated water, and some will receive a blend of fluoridated and non-fluoridated water.

If you wish to know the approximate level of fluoride in your tap water, or specific water service area, please call the Water Quality Division at (714) 701-3000.

Additional information about the fluoridation of drinking water can be found through the following sources:

### U.S. Centers for Disease Control and Prevention

[www.cdc.gov/fluoridation/](http://www.cdc.gov/fluoridation/) • 1-888-CDC-INFO (1-888-232-4636)

### State Water Resources Control Board, Division of Drinking Water

[www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml)

### American Dental Association

<http://www.ada.org/en/public-programs/advocating-for-the-public/fluoride-and-fluoridation/ada-fluoridation-resources>

**American Water Works Association:** [www.awwa.org](http://www.awwa.org)

## 2020 Metropolitan Water District of Southern California Treated Surface Water

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
<b>Radiologicals – Tested in 2020</b>						
Alpha Radiation (pCi/L)	15	(0)	ND	ND – 3	No	Erosion of Natural Deposits
Beta Radiation (pCi/L)	50	(0)	ND	ND – 7	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	2	1 – 3	No	Erosion of Natural Deposits
<b>Inorganic Chemicals – Tested in 2020</b>						
Aluminum (ppm)	1	0.6	0.137	ND – 0.26	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.107	0.107	No	Refinery Discharge, Erosion of Natural Deposits
Bromate (ppb)	10	0.1	1.9	ND – 1.3	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm)	2	1	0.7	0.5 – 0.9	No	Water Additive for Dental Health
<b>Secondary Standards* – Tested in 2020</b>						
Aluminum (ppb)	200*	600	137	ND – 260	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	94	93 – 94	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	1	1	No	Naturally-occurring Organic Materials
Odor (threshold odor number)	3*	n/a	2	2	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	970	964 – 975	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	216	215 – 217	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	592	582 – 603	No	Runoff or Leaching from Natural Deposits
<b>Unregulated Chemicals – Tested in 2020</b>						
Alkalinity, total as CaCO <sub>3</sub> (ppm)	Not Regulated	n/a	118	117 – 120	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL=1	n/a	0.13	0.13	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	66	65 – 67	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO <sub>3</sub> (ppm)	Not Regulated	n/a	265	261 – 269	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	15	15 – 16	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	26	25 – 26	n/a	Runoff or Leaching from Natural Deposits
N-nitrosodimethylamine (ppt)	NL = 10	n/a	3.1	3.1	n/a	Byproduct of Drinking Water Chloramination, Industrial Processes
pH (pH units)	Not Regulated	n/a	8.1	8.1	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.6	4.5 – 4.7	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	96	93 – 98	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.4	2.2 – 2.7	n/a	Various Natural and Man-made Sources

**ppb** = parts per billion; **ppm** = parts per million; **ppt** = parts per trillion; **pCi/L** = picoCuries per liter; **µmho/cm** = micromhos per centimeter; **ND** = not detected; **NL** = Notification Level; **n/a** = not applicable; **TT** = treatment technique; **MCL** = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal  
 \*Chemical is regulated by a secondary standard.

Turbidity – combined filter effluent Metropolitan Water District Diemer Filtration Plant	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Chemical
1) Highest single turbidity measurement	0.3 NTU	0.04	No	Soil Runoff
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. **NTU** = nephelometric turbidity units  
 Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT).  
 A treatment technique is a required process intended to reduce the level of chemicals in drinking water that are difficult and sometimes impossible to measure directly.

## Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Germanium (ppb)	n/a	n/a	0.1	ND – 0.4	2018
Manganese (ppb)**	50*	n/a	1.9	0.8 – 2.7	2018

\*\*Manganese is regulated with a secondary standard of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 20 ppb.  
 Manganese was included as part of the unregulated chemicals requiring monitoring.

## Table Legend

### What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and the DDW have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guidance and directions for water management practices. The charts in this report include three types of water quality goals:

- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by USEPA.
- **Public Health Goals (PHG):** 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 – Office of Environmental Health Hazard Assessment.

### What are Water Quality Standards?

Drinking water standards established by the USEPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The charts in this report show the following types of water quality standards:

- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.
- **Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- **Secondary MCLs** are set to protect the odor, taste, and appearance of drinking water.
- **Primary Drinking Water Standard:** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Notification Level (NL):** The level above which a water agency is required to notify its governing body if an unregulated contaminant is found in its drinking water.

### Measurement Information

In order to ensure that tap water is safe to drink, USEPA and DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

The tables list all the drinking water contaminants that the District detected above the reporting limits during the 2020 calendar year.

The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done for the period January 1 through December 31, 2020. The DDW requires monitoring for certain contaminants less often than every year because the concentrations of these contaminants are not expected to vary significantly from year to year. Thus, some of the data, though representative of current water quality, is more than one year old. The District contracts with state certified, independent laboratories to perform most of the District's water quality testing.

### How are Contaminants Measured?

- Parts per million (**ppm**) or micrograms per liter (**µg/L**)
- Parts per billion (**ppb**) or nanograms per liter (**ng/L**)
- Parts per trillion (**ppt**) or nanograms per liter (**ng/L**)

### What Do the Abbreviations Represent?

- **pCi/L** = picoCuries per liter
- **ND** = not detected
- **NTU** = nephelometric turbidity units
- **n/a** = not applicable
- **TON** = Threshold Odor Number
- **NL** = Notification Level
- **µmho/cm** = micromhos per centimeter

## 2020 Yorba Linda Water District Groundwater Quality

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Chemical
<b>Radiologicals</b>							
Gross Alpha (pCi/L)	15	(0)	<3	ND – 4.58	No	2020	Erosion of Natural Deposits
Uranium (pCi/L)	20	0.43	7	2.87 – 10.9	No	2020	Erosion of Natural Deposits
<b>Inorganic Chemicals</b>							
Arsenic (ppb)	10	0.004	4.7	3.5 – 5.6	No	2020	Erosion of Natural Deposits
Barium (ppm)	1	2	<0.1	ND – 0.111	No	2020	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.5	0.43 – 0.6	No	2019	Erosion of Natural Deposits
Nitrate (ppm as N)	10	10	1.37	0.86 – 1.94	No	2020	Fertilizers, Septic Tanks
Nitrate+Nitrite (ppm as N)	10	10	1.37	0.87 – 1.94	No	2020	Fertilizers, Septic Tanks
<b>Secondary Standards*</b>							
Chloride (ppm)	500*	n/a	124	111 – 134	No	2020	Erosion of Natural Deposits
Color (color units)	15*	n/a	0.6	ND – 3	No	2019	Naturally-occurring organic materials
Manganese (ppb)	50*	n/a	<20	ND – 27	No	2020	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	1,110	1,040 – 1,170	No	2019	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	147	127 – 167	No	2019	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	666	604 – 748	No	2019	Erosion of Natural Deposits
Turbidity (NTU)	5*	n/a	<0.1	ND – 0.1	No	2019	Erosion of Natural Deposits
<b>Unregulated Chemicals</b>							
Alkalinity, total (ppm as CaCO <sub>3</sub> )	Not Regulated	n/a	232	212 – 262	n/a	2019	Erosion of Natural Deposits
Bicarbonate (ppm as HCO <sub>3</sub> )	Not Regulated	n/a	283	258 – 319	n/a	2019	Erosion of Natural Deposits
Boron (ppm)	NL = 1	n/a	0.27	0.24 – 0.3	n/a	2019	Erosion of Natural Deposits
Bromide (ppm)	Not Regulated	n/a	0.16	ND – 0.21	n/a	2019	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	98	83.2 – 114	n/a	2019	Erosion of Natural Deposits
Hardness, total (grains/gal)	Not Regulated	n/a	20	17 – 22	n/a	2019	Erosion of Natural Deposits
Hardness, total (ppm as CaCO <sub>3</sub> )	Not Regulated	n/a	334	295 – 383	n/a	2019	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	21.8	20.1 – 23.8	n/a	2019	Erosion of Natural Deposits
Perfluoro Butane Sulfonic Acid (ppt)	NL = 500	n/a	12.7	12.2 – 13.2	n/a	2020	Man-made Sources
Perfluoro Hexane Sulfonic Acid (ppt)	Not Regulated	n/a	13.4	13.2 – 13.6	n/a	2020	Man-made Sources
Perfluorohexanoic Acid (ppt)	Not Regulated	n/a	4.3	4.2 – 4.3	n/a	2020	Man-made Sources
Perfluorooctane Sulfonic Acid (ppt)	NL = 6.5	n/a	32.4	32.3 – 32.4	n/a	2020	Man-made Sources
Perfluorooctanoic Acid (ppt)	NL = 5.1	n/a	19.3	19.1 – 19.4	n/a	2020	Man-made Sources
pH (pH units)	Not Regulated	n/a	7.8	7.7 – 7.9	n/a	2019	Acidity, hydrogen ions
Potassium (ppm)	Not Regulated	n/a	5.8	4.9 – 7.8	n/a	2019	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	99.4	88.5 – 113	n/a	2019	Erosion of Natural Deposits
Total Organic Carbon (ppm)	Not Regulated	n/a	0.89	ND – 1.79	n/a	2019	Various Natural and Man-made Sources
Vanadium (ppb)	NL=50	n/a	4.7	3.3 – 7.4	n/a	2019	Erosion of Natural Deposits; Industrial Discharge

**ppb** = parts per billion; **ppm** = parts-per-million; **pCi/L** = picoCuries per liter; **NTU** = nephelometric turbidity units; **ND** = not detected; **n/a** = not applicable; **µmho/cm** = micromho per centimeter; **NL** = notification level; **<** = average is less than the detection limit for reporting purposes; **MCL** = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal  
 \*Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

### Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Bromide (ppm)	n/a	n/a	0.23	0.204 – 0.259	2019
Germanium (ppb)	n/a	n/a	<0.3	ND – 0.3	2019
Manganese (ppb)**	50*	n/a	10.7	10.5 – 10.8	2019
Total Organic Carbon (Unfiltered) (ppm)	n/a	n/a	1.14	0.76 – 1.83	2019

\*\* Manganese was included as part of the unregulated chemicals requiring monitoring.

## About Lead in Tap 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.

The District is responsible for providing safe drinking water, but cannot control the variety of materials used in customer 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.

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 on the web at:

[www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

There are no known lead service lines for potable water in the District. Please see chart titled "Lead and Copper Action Levels for Residential Taps" on page 7 for more District-specific information.

## 2020 Yorba Linda Water District Distribution System Water Quality

Type	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
<b>DISINFECTANT RESIDUAL AND DISINFECTION BY-PRODUCTS</b>					
Chlorine Residual (ppm)	(4 / 4)	1.57	0.95 – 2.03	No	Disinfectant Added for Treatment
Total Trihalomethanes (ppb)	80	60	7.2 – 69	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	14	4.9 – 18	No	Byproducts of Chlorine Disinfection
<b>AESTHETIC QUALITY</b>					
Color (color units)	15*	ND	ND	No	Naturally-occurring organic materials
Odor (threshold odor number)	3*	ND	ND	No	Naturally-occurring organic materials
Turbidity (NTU)	5*	0.18	ND – 1.2	No	Erosion of natural deposits

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids. Thirty-seven locations are tested monthly for color, odor and turbidity.

**MRDL** = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal; **NTU** = nephelometric turbidity unit; **ND** = not detected

\*Chemical is regulated by a secondary standard to maintain aesthetic qualities (color, odor, and taste).

## Lead and Copper Action Levels at Residential Taps

Chemical	Action Level (AL)	Public Health Goal	90 <sup>th</sup> Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Chemical
Lead (ppb)	15	0.2	ND	0 / 67	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	1.3	0.3	0.5	0 / 67	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Every three years, at least 37 residences are tested for lead and copper at-the-tap. The most recent set of 67 samples were collected in August 2018.

Lead was detected in 5 homes; none exceeded the Action Level. Copper was detected in 58 homes; none exceeded the Action Level.

The regulatory Action Level is the concentration at which, if exceeded in more than ten percent of the homes tested, triggers treatment or other requirements that a water system must follow.

The Yorba Linda Water District complied with the lead and copper Action Levels.

In 2020, no schools submitted a request to be sampled for lead.

## Unregulated Chemicals Requiring Monitoring in the Distribution System

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Bromochloroacetic Acid (ppb)	n/a	n/a	4.9	1.8 – 8.5	2019
Bromodichloroacetic Acid (ppb)	n/a	n/a	2.5	1.2 – 3.8	2019
Chlorodibromoacetic Acid (ppb)	n/a	n/a	4.1	1.1 – 5.5	2019
Dibromoacetic Acid (ppb)	n/a	n/a	6.5	1.5 – 9.7	2019
Dichloroacetic Acid (ppb)	n/a	MCLG = 0	2	0.8 – 3.7	2019
Monobromoacetic Acid (ppb)	n/a	n/a	0.78	ND – 1.7	2019
Tribromoacetic Acid (ppb)	n/a	n/a	4.5	ND – 5.7	2019
Trichloroacetic Acid (ppb)	n/a	MCLG = 20	0.74	ND – 1.4	2019

## Source Water Assessments

### Imported (MWD) Water Assessment

Every five years, MWD is required by DDW to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters.

The most recent watershed sanitary surveys of its source water supplies from the Colorado River was updated in 2015 and the State Water Project was updated in 2016. Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

USEPA also requires MWD to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWD completed its SWA in December 2002. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

A copy of the most recent summary of either Watershed Sanitary Survey or the SWA can be obtained by calling MWD at (800) CALL-MWD (225-5693).



### Groundwater Assessment

Vulnerability assessments of potential sources of contamination for Wells 20 and 21 were conducted in June 2011 and June 2014, respectively. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: chemical/petroleum processing/storage facilities; historic gas stations; metal plating/finishing/fabricating plants; automobile repair shops; furniture repair and manufacturing; junk/scrap/salvage yards; machine shops; NPDES/WDR permitted discharges; photo processing/printing; recreational area surface water use; sewer collection systems; oil wells; gas stations; plastic/synthetic producers; above ground storage tanks; artificial recharge projects using non-potable water; car washes; construction/demolition staging areas; dredging; hardware/lumber/part stores; parking lots; transportation corridors; water supply wells; body shops, automobile repair shops; electrical/electronic manufacturing; fleet/truck/bus terminals; dry cleaners; appliance/electronic repair; medical/dental offices/clinics; office buildings; surface water; decommissioned inactive underground storage tanks; upgraded and/or registered underground storage tanks; monitoring wells; hospitals, and parks.

Vulnerability assessments of potential sources of contamination for Wells 19 and 18 were completed in May 2004 and September 2005, respectively. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: gas stations; dry cleaners; metal plating/finishing/fabricating plants; plastic/synthetic producers; underground injection of commercial/industrial discharges; underground storage tanks; agricultural drainage; fertilization, pesticide and herbicide application; automobile-body and repair shops; sewer collection systems; food processing, and chemical/petroleum processing/storage.

A vulnerability assessment of potential sources of contamination for Well 15 was completed in April 2003. These groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: chemical/petroleum processing/storage; metal plating/finishing/fabricating; and plastics/synthetics production.

The District completed an assessment of its Wells 1, 5, 7, 10, and 12 in January 1999. The wells are considered most vulnerable to contaminants produced by the following activities: gas stations; dry cleaners; metal plating/finishing/fabricating plants; plastic/synthetic producers; underground injection of commercial/industrial discharges; underground storage tanks; agricultural drainage; fertilization, pesticide and herbicide application; automobile-body and repair shops; and chemical/petroleum processing/storage.

A copy of the complete assessment is available at State Water Resources Control Board, Division of Drinking Water at 2 MacArthur Place, Suite 150, Santa Ana, California 92707.





## Total Coliform Rule

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements instituted during 2016.

All water systems are required to comply with the state Total Coliform Rule. Effective April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule.

The new federal rule protects public health by ensuring the integrity of the drinking water distribution system by monitoring for the presence of microbials (i.e., total coliform and *E. coli* bacteria). The USEPA anticipates greater public health protection as the



new rule requires water systems that are vulnerable to microbial contamination to identify and resolve potential issues. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

## Arsenic

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the

health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

## Leading the Way:

# YLWD is Constructing the Largest PFAS Water Treatment Plant in the Nation

PFOA and PFOS are man-made chemicals that are part of a larger family known as "forever chemicals" or Per- and polyfluoralkyl substances (PFAS). Since the 1940s, they have been used to manufacture everyday household products such as make-up, frying pans, and pizza boxes, as well as in various industrial applications. These chemicals have been detected in water throughout the nation, including in Orange County. Studies have shown that these chemicals, over a long period of exposure, pose a possible health risk.

On February 6, 2020, the Division of Drinking Water changed its response levels for these chemicals. Since PFOA and PFOS have been found in low levels in YLWD's groundwater wells, YLWD is partnering with the Orange County Water District to construct a treatment plant, the largest plant of its kind in the nation.

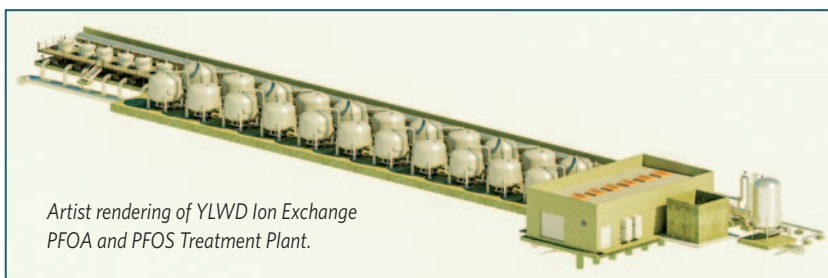
The District researched and tested many technologies that could be used to remove PFOA and PFOS from water and ultimately decided to construct

an Ion Exchange (IX) plant, a well-established treatment technology. The plant will have pre-filters that will remove contaminants before the water is sent through the IX resin. The vessel trains containing the IX resin will remove any remaining PFOA and PFOS to below



the applicable regulatory limits. The plant will then distribute the treated water to the community at an operating capacity of 19 million gallons of water per day.

Delivering safe and reliable drinking water to our customers is our highest priority so, while the plant is being built, the District is purchasing



Artist rendering of YLWD Ion Exchange PFOA and PFOS Treatment Plant.

water that the Metropolitan Water District of Southern California imports from Northern California and the Colorado River. Tests have shown that this imported water does not have detectable levels of PFOA and PFOS.

You can learn more about PFOA and PFOS and YLWD's actions at [www.ylwd.com/pfos-and-pfoa](http://www.ylwd.com/pfos-and-pfoa). Additional information from the State Water Board is available at [www.waterboards.ca.gov/pfas](http://www.waterboards.ca.gov/pfas).

## Where Can You Learn More?

There's a wealth of information on the internet about Drinking Water Quality and water issues in general. Some good sites to begin your own research are:

**Metropolitan Water District of So. California:** [www.mwdh2o.com](http://www.mwdh2o.com)

**California Department of Water Resources:** [www.water.ca.gov](http://www.water.ca.gov)

**The Water Education Foundation:** [www.watereducation.org](http://www.watereducation.org)

To learn more about **Water Conservation & Rebate Information:**  
[www.bewaterwise.com](http://www.bewaterwise.com) • [www.ocwatersmart.com](http://www.ocwatersmart.com)

And to see the Aqueducts in action, checkout these two videos:

**Wings Over the State Water Project:** [youtu.be/8A1v1Rr2neU](https://youtu.be/8A1v1Rr2neU)

**Wings Over the Colorado Aqueduct:** [youtu.be/KipMQh5t0f4](https://youtu.be/KipMQh5t0f4)



### Yorba Linda Water District

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