moulton niguel water district

2023

WATER QUALITY REPORT

Safe & Reliable Drinking Water, Delivered Every Day

moulton niguel water district

Dear Moulton Niguel Customer,

Safe and reliable water service is Moulton Niguel's highest priority.

To deliver on that commitment, Moulton Niguel conducts extensive water quality tests throughout the year. State-of-the-art laboratories independently analyze the tests to ensure we adhere to the strict safety standards set by the Environmental Protection Agency and the State Water Resources Control Board.

On behalf of the Moulton Niguel Board of Directors, I am pleased to report:

Moulton Niguel's drinking water continues to meet all federal and state water quality standards and safety regulations.

This annual Consumer Confidence Report covers water quality testing for the 2023 calendar year, summarizing everything you need to know about your water. It includes detailed results of water quality tests conducted at each stage of treatment and delivery. We have also included information about the required safety regulations for all public drinking water providers.

Moulton Niguel takes great pride in providing you safe, clean, and reliable drinking water at one of the lowest rates in South Orange County.

We are here to serve you. Please call us anytime you need help at **(949) 831-2500** or email **customerservice@mnwd.com**.

Sincerely,

JOONE KIM-LOPEZ
General Manager & CEO, Moulton Niguel Water District

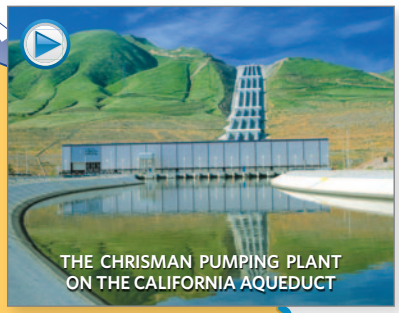
Where Our Water Comes From

Have you ever wondered where your water comes from? Here in the Moulton Niguel Water District, our water is imported from both Northern California and the Colorado River.

Water from Northern California travels to us through a complex delivery system known as the California State Water Project. Designed and built in the 1960s, the State Water Project is one of the largest public water and power utilities in the world, providing drinking water for more than 27 million people statewide.

Managed by the California Department of Water Resources (DWR), the project stretches over 700 miles, from Lake Oroville in the north to Lake Perris in the south. Water stored in Lake Oroville, Folsom Lake, and other tributaries are fed by snow melt from the Sierra Mountains. All of which flow into the Sacramento and San Joaquin rivers, and from there into reservoirs in the Bay-Delta region.

From the Bay-Delta, giant pumps lift the water into the 444-mile-long California Aqueduct, there to flow southward to cities and farms in central and Southern California. Composed mainly of concrete-lined canals, the Aqueduct also includes over 20 miles of tunnels and nearly 160 miles of pipelines. Along the way, the water is pumped 2,882 feet over the Tehachapi Mountains. The Edmonston Pumping Plant alone lifts millions of gallons a day up 1,926 feet, the highest single water lift in the world.



Managed by the Metropolitan Water District of Southern California (MWD), the Colorado River Aqueduct begins near Parker Dam on the Colorado River. There, the Gene Pumping Station lifts the water over 300 feet and begins its 242 mile journey to Lake Mathews, just outside the City of Corona. Along the way, the water passes through two reservoirs, five pumping stations, 62 miles of canals, and 176 miles of pipelines. All told, the water is lifted four times, a total of more than 1,300 feet.

After its journey across the Mojave Desert, the water descends into the Coachella Valley and through the San Gorgonio Pass. Near Cabazon, the aqueduct flows underground, passing beneath the San Jacinto Mountains and continuing until it reaches its terminus at Lake Mathews. From there, 156 miles of distribution lines and eight more tunnels, delivers the water throughout Southern California.

Water Quality

Sources of Our Water Supply

Moulton Niguel relies on imported water from MWD, which sources its water supply from the Colorado River and the State Water Project. MWD delivers an average of 1.5 billion gallons of water per day to a 5,200-square-mile service area of nearly 19 million people in parts of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.


Parker Dam on the Colorado River

Importing water from hundreds of miles away is only the start to providing you clean, fresh water. Once the water is in the southland, MWD pumps the water to individual cities throughout Orange County.

Your water is treated at the Diemer Water Treatment Plant in Yorba Linda and the Baker Water Treatment Plant in Lake Forest, which is then delivered to Moulton Niguel Water District. Your water is a blend of both treatment plants.

This water meets all state and federal regulations and it is kept safe from the treatment plant to your tap by regular testing throughout the distribution network. Moulton Niguel's pipelines, pump stations, and reservoirs are used to deliver this water to you when and where it is needed.

Moulton Niguel Water District monitors the water quality at all sources, reservoirs, and various points in the distribution system. All told, between the many agencies responsible for providing your water, it is tested more times, and for more compounds, than is required by state and federal laws and regulations. This vigilant monitoring ensures your drinking water stays within the requirements mandated by the federal Safe Drinking Water Act.

Basic Information about Your Drinking Water

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 U.S. EPA's Safe Drinking Water Hotline **(1-800-426-4791)** or visiting **www.epa.gov/your-drinking-water**.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it can dissolve naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in 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** that 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** that 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 USEPA and the State Water Resources Control Board, Division of Drinking Water (DDW) prescribe regulations that limit the amounts of certain contaminants in water provided by public water systems. DDW and U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that provide similar protection for public health.

Water Quality Tests

Lead

Moulton Niguel meets all required standards for lead in the USEPA Lead and Copper Rule. 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.

Moulton Niguel is responsible for providing high quality drinking water to your property, but cannot control the variety of materials used in various plumbing components within your home or business.

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. However, please follow this practice carefully to reduce any potential water waste.

Moulton Niguel participates in the State Water Resources Control Board's Lead Testing in Schools Program. To date, all samples collected at schools in the District have met drinking water standards set by the State and Federal regulatory agencies.

For questions about your water quality, please call Moulton Niguel Customer Service at **(949) 831-2500**.

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, **(800) 426-4791**, or at **www.epa.gov/lead**.

Cryptosporidium

Cryptosporidium is a microbial pathogen that originates from animal or human waste and is found in surface waters throughout the United States. When ingested, it can cause diarrhea, fever, and other gastrointestinal symptoms.

MWD tested but did not detect *Cryptosporidium* in the source and treated surface waters during 2023. If detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration, and disinfection.

The USEPA and Federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminates are available from the USEPA Safe Drinking Water Hotline at **(800) 426-4791** or visit **www.epa.gov/safewater**.

Water Hardness

Levels of calcium and magnesium, which occur naturally in water, are the primary substances that determine whether water is hard or soft.

Water from the Colorado River, one of Moulton Niguel's sources of water, contains fairly high levels of these minerals and is considered "hard."

Water hardness does not negatively affect your health; however, hard water does require more soap than soft water and will leave mineral deposits on plumbing fixtures over time.

Water hardness is measured in grains per gallon. In 2023, the hardness found in your water had an average of 13.3 grains per gallon.

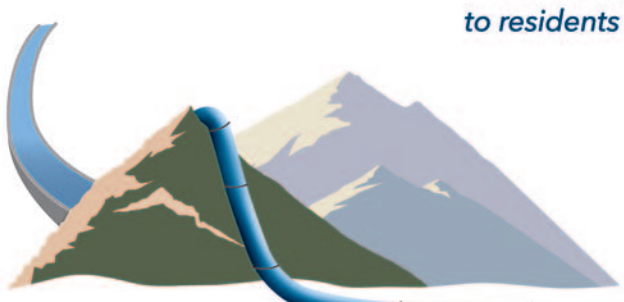
Immunocompromised People

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, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

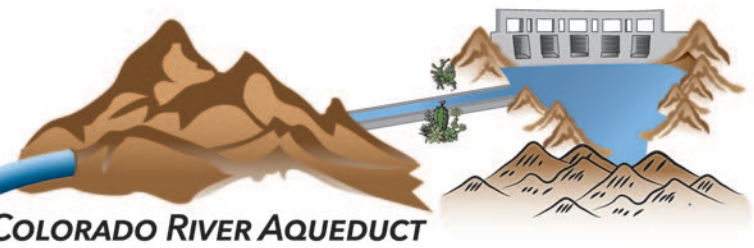
moulton niguel water district

Our Water Distribution System

Delivering safe, clean and reliable water to residents and businesses in our community



STATE WATER PROJECT
(Imports water from Northern California)



COLORADO RIVER AQUEDUCT
(Imports water from Colorado River)

BAKER WATER TREATMENT PLANT
Joint Regional Project with Five South Orange County Water Districts

OC-88 PUMPHOUSE

ALLEN-MCCOLLOCH PIPELINE

SEVILLE RESERVOIR

R-6 RESERVOIR (Covered)

SOUTH COUNTY PIPELINE

Robert B. Diemer WATER TREATMENT PLANT
Metropolitan Water District of Southern California

JOINT TRANSMISSION MAIN

EL DORADO RESERVOIR

EL DORADO PUMPING STATION

LAGUNA HILLS

UPPER CHIQUITA RESERVOIR (Covered)

EASTERN TRANSMISSION MAIN

ALICIA PARKWAY

LA PAZ RESERVOIR

LA PAZ PUMPING STATION

SHEEP HILLS RESERVOIR

ALISO CREEK ROAD

SHEEP HILLS PUMPING STATION

ROLLING HILLS RESERVOIR

MOULTON PARKWAY

ALISO HILLS RESERVOIR

SAN DIEGO FWY

ALISO VIEJO

GLENWOOD DRIVE

ROLLING HILLS PUMPING STATION

moulton niguel water district

MISSION VIEJO

SAN JOAQUIN HILLS TRANSPORTATION CORRIDOR

NELLIE GAIL RESERVOIR

OSO PARKWAY

MARGUERITE RESERVOIR

LA PAZ ROAD

MOULTON PEAK RESERVOIR

BRIDLEWOOD

MARGUERITE PUMPING STATION

CASA DE OSO PUMPING STATION

PACIFIC PARK DRIVE

The Ziggurat

OSO PUMPING STATION

SOKA UNIVERSITY

MARGUERITE PARKWAY

Providence Mission Hospital

WOOD CANYON RESERVOIR

CROWN VALLEY RESERVOIR

WOOD CANYON PUMPING STATION

PACIFIC PARK RESERVOIR

Laguna Niguel Regional Park

EAST ALISO CREEK RESERVOIR

SADDLEBACK COLLEGE

SADDLEBACK RESERVOIR AND PUMPING STATION

COUNTRY VILLAGE PUMPING STATION

HIGHLANDS RESERVOIR

PACIFIC PARK PUMPING STATION

CROWN VALLEY PARKWAY

AVERY PARKWAY

ALISO SUMMIT RESERVOIR

BIG NIGUEL PUMPING STATION

RANCHO PUMPING STATION

LAGUNA SUR RESERVOIR

NIGUEL ROAD

SAN JUAN CAPISTRANO

ALICIA PARKWAY

P.I.D. RESERVOIR NO. 3

P.I.D. PUMPING STATION NO. 3

RANCHO RESERVOIR

LAGUNA NIGUEL

LITTLE NIGUEL PUMPING STATION

GOLDEN LANTERN

PACIFIC ISLAND DRIVE

P.I.D. RESERVOIR NO. 2

P.I.D. PUMPING STATION NO. 2

BEAR BRAND RESERVOIR

P.I.D. PUMPING STATION NO. 1

BEACON HILL PUMPING STATION

CAMINO DEL AVION

DANA POINT

BEAR BRAND PUMPING STATION

MOULTON NIGUEL WATER DISTRICT
By the Numbers

100
Percent of Drinking Water Imported

37
Total Service Area in Square Miles

170,000+
Number of Residents Served on a Daily Basis

7
Amount of Drinking Water Delivered Each Year, in Billions of Gallons

12,000
Number of Water Quality Tests Conducted Every Year

700
Miles of Potable Water Pipelines Maintained Throughout District

28
Water Storage Reservoirs Located within District

173
Capacity of Water Storage Reservoirs in Millions of Gallons

25
Number of Pumping Stations Operated throughout District

21
Number of Pressure Reducing Stations and Flow Control Facilities in District

Additional Information

Drinking Water Fluoridation

Fluoride has been added to drinking water supplies in the United States since 1945. Of the 50 largest cities in the United States, 43 fluoridate their drinking water. In December 2007, MWD joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay.

MWD is in compliance with all provisions of the State's fluoridation system requirements. Fluoride levels in drinking water are limited under California State regulations to a maximum dosage of two (2) parts per million.

For additional information:

U.S. Centers for Disease Control and Prevention
(800) 232-4636 ♦ www.cdc.gov/fluoridation/

State Water Resources Control Board, Division of Drinking Water
www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html

American Water Works Association
www.awwa.org

Metropolitan Water District of Southern California
Fluoridation Program ♦ Edgar G. Dymally
(213) 217-5709 ♦ edymally@mwdh2o.com

Chloramines

All of Moulton Niguel's drinking water is imported from MWD and is disinfected at the Diemer Water Treatment Plant and the Baker Water Treatment Plant with chloramines, which is a combination of chlorine and ammonia. In addition, Moulton Niguel maintains disinfection levels in stored water through the addition of chloramines, as needed.

Chloramines are effective killers of bacteria and other micro-organisms that may cause disease. Compared to chlorine alone, chloramines last longer in the distribution system, minimize byproduct formation, and have minimal odor.

Individuals who use kidney dialysis machines may want to take special precautions and consult their health care providers for the appropriate type of supplementary water treatment, if required.

Customers who maintain fish ponds, tanks, or aquariums should also make necessary adjustments in water quality treatment, as these disinfectants may be harmful to fish.

For more information about your water quality, please call Moulton Niguel Customer Service at **(949) 831-2500**.

Want to Learn More?

There's a wealth of information online 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
California Department of Water Resources: www.water.ca.gov
To learn more about
Water Conservation & Rebates: www.mnwd.com/rebates
or to learn why
You Can Depend on Your Water System:
www.youtube.com/watch?v=lshe58YVGRE&t=1s
And to see the Aqueducts in action, checkout these two videos:
Wings Over the State Water Project: youtu.be/8A1v1Rr2neU
Wings Over the Colorado Aqueduct: youtu.be/KipMQh5t0f4

Water Quality Charts Legend

What are Water Quality Standards?

Drinking water standards established by USEPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The tables in the 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 are economically and technologically feasible.
- **Maximum Residual Disinfectant Level (MRDL)**: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Secondary MCLs:** 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.
- **Running Annual Average (RAA):** The highest of all Running Annual Averages calculated as average of all the samples collected within a 12-month period.

How are Contaminants Measured?

Water is sampled and tested throughout the year. Contaminants are measured in:

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

Source Water Assessments

Metropolitan Water District

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 surveys for MWD's source waters are the Colorado River Watershed Sanitary Survey – 2020 Update, and the State Water Project Watershed Sanitary Survey – 2021 Update. Both source waters are exposed to stormwater runoff, recreational activities, wastewater discharges, wildlife, fires, and other watershed-related factors that could affect water quality.

Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban and 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 and 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)**.

What is a Water Quality Goal?

In addition to mandatory water quality standards, the 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 guidelines and direction for water management practices. The tables 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 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.

Public Health Goal (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.

Contaminants Not Detected (2023)

The water delivered to your home is safe, clean and continues to surpass every state and federal water quality standard. The contaminants listed here were *NOT DETECTED* in Moulton Niguel's water.

- 1,1,1-Trichloroethane
- 1,1,2,2-Tetrachloroethane
- 1,1,2-Trichloroethane
- 1,1-Dichloroethane
- 1,2-Dichloroethane
- 1,2,3-Trichloropropane
- 1,2,4-Trichlorobenzene
- 1,2-Dichlorobenzene
- 1,2-Dichloropropane
- 1,4-Dichlorobenzene
- Atrazine
- Benzene
- Beryllium
- Cadmium
- Carbon Tetrachloride
- Chromium
- Chromium-6
- *Cryptosporidium*
- Cyanide
- Dichlorofluoromethane
- Ethylbenzene
- Fecal Coliform & *E. coli*
- Giardia
- Mercury
- Methyl-t-butyl ether (MTBE)
- Nickel
- Perchlorate
- Perfluorooctane sulfonate (PFOS)
- Perfluorooctanoic Acid (PFOA)
- Radium
- Simazine
- Strontium – 90
- Styrene
- Thallium
- Thiobencarb
- Toluene
- Trans-1,2-Dichloroethane
- Trichlorofluoromethane (Freon-11)
- Tritum
- Vinyl Chloride
- Xylenes

Baker Water Treatment Plant

The Baker Water Treatment Plant receives untreated surface water from MWD (see MWD water assessment left) and untreated surface water from Irvine Lake (Santiago Reservoir). The surface water assessment of Santiago Reservoir is provided by Serrano Water District, which also uses source water from Santiago Reservoir.

The most recent watershed sanitary survey for Santiago Reservoir was updated in 2019. Water supplies from Santiago Reservoir are most vulnerable to septic tank, landfill and dump activities. The Source Water Assessment (SWA) for Santiago Reservoir was completed in April 2001. The assessment was conducted for the Serrano Water District by Boyle Engineering Corporation with assistance from the District's staff and management.

A copy of the complete assessment may be viewed at the IRWD Water Quality Department, 3512 Michelson Drive, Irvine. You may request a summary of the assessment by writing to District Secretary, Irvine Ranch Water District, 15600 Sand Canyon Avenue, Irvine, California 92618.

Metropolitan Water District of Southern California
Treated Surface Water Quality Results for 2023

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
Radiologicals						
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND – 5	No	Runoff leaching of natural deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	ND	ND – 6	No	Decay of natural and man-made deposits
Uranium (pCi/L)	20	0.43	1	ND – 3	No	Erosion of natural deposits
Inorganic Chemicals						
Aluminum (ppm)	1	0.6	RAA = 0.105	ND – 0.07	No	Treatment Process Residue, Natural Deposits
Nitrate (as Nitrogen) (ppm)	10	10	0.7	0.7	No	Runoff and leaching from fertilizer use, septic tanks and sewage; natural deposits erosion
Fluoride (ppm) treatment-related	2	1	0.7	0.6 – 0.8	No	Water Additive for Dental Health; Runoff or Leaching from Natural Deposits
Disinfection Byproducts						
Bromate (ppb)	10	0.1	ND	ND – 6.3	No	Byproduct of drinking water ozonation
Secondary Standards*						
Aluminum (ppb)	200*	600	RAA = 105	ND – 70	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	66	42 – 91	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	2	1 – 2	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	642	424 – 859	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	122	70 – 175	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	394	253 – 534	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals						
Chlorate (ppb)	NL = 800	n/a	19	19	n/a	Byproduct of drinking water chlorination; industrial process
Boron (ppb)	NL = 1,000	n/a	130	130	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as $CaCO_3$ (ppm)	Not Regulated	n/a	160	99 – 220	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	9.3	5.7 – 12.8	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	15	9.6 – 21	n/a	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	8.5	8.5	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	3.4	2.6 – 4.3	n/a	Runoff or Leaching from Natural Deposits
Vanadium (ppb)	NL = 50	n/a	3.1	3.1	n/a	Naturally occurring; industrial waste discharge
Sodium (ppm)	Not Regulated	n/a	69	47 – 91	n/a	Runoff or Leaching from Natural Deposits
Alkalinity, total as $CaCO_3$ (ppm)	Not Regulated	n/a	84	66 – 102	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	38	25 – 52	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.4	2.1 – 3.0	No	Various Natural and Man-made Sources. TOC is a precursor for the formation of disinfection byproducts.

ppb = parts-per-billion; **ppm** = parts-per-million; **pCi/L** = picoCuries per liter; **µmho/cm** = micromhos per centimeter; **ND** = not detected; **TT** = treatment technique; **RAA** = Running Annual Average; **MCL** = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal; **NL** = Notification Level; **n/a** = not applicable

*Chemical is regulated by a secondary standard.

Turbidity – combined filter effluent Metropolitan Water District Diemer Water Treatment Plant	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Chemical
1) Highest single turbidity measurement	0.3 NTU	0.08	No	Soil Runoff
2) Percentage of samples less than or equal to 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.

2023 Moulton Niguel Water District Distribution System

Disinfection Byproducts	Units	MCL	Annual Average	Range of Detections
Total Trihalomethanes	ppb	80	46	27.1 – 66.4
Haloacetic Acids	ppb	60	21	6.8 – 33.0
Disinfectant Residual (chloramines)	mg/L	4	2.03	0.3 – 3.0
Lead (90^{th} %)	ppb	15	ND	N/A
Copper (90^{th} %)	mg/L	1.3	0.149	N/A

The Lead and Copper data is from testing of 52 residences in 2021. Zero tests exceeded the Action Level.

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG
E. coli	0	0	1	0


Robert B. Diemer Water Treatment Plant

Baker Water Treatment Plant
Treated Surface Water Quality Results for 2023

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
Radiologicals						
Gross Alpha Particle Activity (pCi/L)	15	(0)	5.4	5.4	No	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	5.13	5.13	No	Decay of natural and man-made deposits
Uranium (pCi/L)	20	0.43	1.7	1.7	No	Erosion of natural deposits
Inorganic Chemicals						
Arsenic (ppb)	10	0.004	<2.0	ND – 2.31	No	Natural deposits erosion: glass and electronics production waste
Barium (ppm)	1	2	<0.10	ND – 0.115	No	Oil and metal refineries discharge; Natural deposits erosion
Nitrate (as Nitrogen) (ppm)	10	10	0.28	ND – 0.47	No	Run off and leaching from fertilizer use; septic tank and sewage. Natural deposits erosion
Fluoride (ppm)	2.0	1	0.32	0.26 – 0.37	No	Erosion of natural deposits; water additive that promotes strong teeth
Disinfection Byproducts						
Chlorite (ppm)	1	0.05	0.1	0.06 – 0.13	No	Byproduct of drinking water chlorination
Chlorine Dioxide (ppb)	MRDL = 800	MRDLG = 800	50.4	ND – 600	No	Drinking water disinfectant added for treatment
Secondary Standards*						
Chloride (ppm)	500*	n/a	89.2	55.5 – 111	No	Runoff or Leaching from Natural Deposits; sea water influence
Color (color units)	15*	n/a	<3	<3 – 5	No	Naturally-occurring Organic Materials
Manganese (ppb)	50	NL = 500	2.74	ND – 78.0	No	Leaching from natural deposits
Odor (threshold odor number)	3*	n/a	1	<1 – 3	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	1,001	918 – 1085	No	Substances that Form Ions in Water; sea water influence
Sulfate (ppm)	500*	n/a	217	187 – 240	No	Runoff or Leaching from Natural Deposits; industrial wastes
Total Dissolved Solids (ppm)	1,000*	n/a	612	528 – 672	No	Runoff or Leaching from Natural Deposits; sea water influence
Unregulated Chemicals						
Alkalinity, total as $CaCO_3$ (ppm)	Not Regulated	n/a	138	116 – 154	n/a	Runoff or Leaching from Natural Deposits
Bicarbonate (ppb)	Not Regulated	n/a	137	116 – 153	n/a	Runoff or Leaching from Natural Deposits
Boron (ppb)	NL=1000	n/a	137	133 – 141	n/a	Runoff or Leaching from Natural Deposits
Carbonate (ppm)	Not Regulated	n/a	<0.6	<0.6 – 1.3	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	74.7	68.8 – 81.4	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as $CaCO_3$ (ppm)	Not Regulated	n/a	297	282 – 321	n/a	Runoff or Leaching from Natural Deposits
Hardness as Grains per Gallon	Not Regulated	n/a	17.3	16.45 – 18.7	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	27.9	25 – 29.9	n/a	Runoff or Leaching from Natural Deposits
Molybdenum (ppb)	Not Regulated	n/a	4.27	3.82 – 4.65	n/a	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	8.0	7.5 – 8.5	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.18	4.05 – 4.21	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	91.6	74.2 – 112	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	1.8	1.8	n/a	Various Natural and Man-made Sources

ppb = parts-per-billion; **ppm** = parts-per-million; **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; **MRDL** = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal
*Chemical is regulated by a secondary standard.

Turbidity – combined filter effluent Baker Water Treatment Plant	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Chemical
1) Highest single turbidity measurement	0.1 NTU	0.03	No	Soil Runoff
2) Percentage of samples less than or equal to 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. Low turbidity in Baker'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.

NTU = nephelometric turbidity units

Unregulated Chemicals Requiring Monitoring in 2023

Chemical	Average Amount	Range of Detections
Lithium (ppb)	33.8	9.4 – 43.0

In 2023, MNWD participated in the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR5) program by performing additional testing for lithium and for 29 different per- and polyfluoroalkyl substances (PFAS) chemicals. This program helps determine if new regulatory standards are needed for unregulated contaminants. MNWD had zero detections for all 29 PFAS chemicals that were tested for, and we ensure all drinking water meets current standards. For more information, visit the EPA's website or contact the Safe Drinking Water Hotline at (800) 426-4791

Connect with Moulton Niguel

Federal and State Water Quality Regulations

The United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board, Division of Drinking Water (DDW) are the agencies responsible for establishing drinking water quality standards. The Metropolitan Water District of Southern California (MWD), which supplies imported water to Moulton Niguel, tests for unregulated chemicals in our water supply. Whenever possible, MWD goes beyond what is required by testing for unregulated chemicals that do not have drinking water standards. Unregulated chemical monitoring helps USEPA and DDW determine where certain chemicals may be present and whether new standards need to be established to protect public health.

Through drinking water quality testing programs carried out by MWD for imported water and Moulton Niguel for our local distribution system, your drinking water is monitored from source to tap for regulated and unregulated constituents.

The State allows monitoring for some contaminants less than once per year because concentrations of these contaminants do not change frequently. Some data, though representative, is more than one year old.

Total Coliform Rule

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule.

The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and *E. coli* bacteria). The USEPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. 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. The state Revised Total Coliform Rule became effective July 1, 2021.

Questions About Your Water? Contact Us for Answers.

If you have questions about this report, please call Dan Horn, Moulton Niguel Water Distribution Supervisor, at **(949) 425-3519**. To reach Moulton Niguel Customer Service and for other information, please call **(949) 831-2500**, or email **customerservice@mnwd.com**.

A copy of this report is also available on our website: **www.mnwd.com/CCR**.

For more information about the health effects of the listed contaminants in this report, call the **USEPA Safe Drinking Water Hotline** at **(800) 426-4791**.

Community Participation

The Moulton Niguel Board of Directors typically meets at the District's Headquarters, 26161 Gordon Road, Laguna Hills, California 92653 on the second Thursday of the month at 6 pm. More information about regular meetings and events is available at **www.mnwd.com/events**.

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 potable. Tradúzcalo o hable con alquien que lo entienda bien.

此份有关你的食水报告,内有重要资料
和讯息,请找他人为你翻译及解释清楚。

"هذا ألتقرير يحتوي على معلومآ ت مهّمة تتعلق بمياه ألشفة
(أو ألشرب). ترجم ألتقرير, أو تكلم مع شخص يستطيع أن يفهم ألتقرير."

Moulton Niguel: No PFOA or PFOS Chemicals Detected in Our Water

The State of California has established regulations for two specific PFAS chemicals: perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). Moulton Niguel's water has been tested for these chemicals and does not have any known or reportable levels of PFOA or PFOS. Additional PFAS information is available at: www.waterboards.ca.gov/pfas/.

moulton niguel water district

26161 Gordon Road ♦ Laguna Hills, California 92653
www.mnwd.com