TRABUCO CANYON
WATER DISTRICT

2023 Water Quality Report

DATA FOR 2022

Your 2023 Water Quality Report

Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers calendar year 2022 drinking water quality testing and reporting.**

Trabuco Canyon Water District (TCWD) vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the quality standards required by federal and state regulatory agencies. The U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board, Division of Drinking Water (DDW) are the agencies responsible for establishing and enforcing drinking water quality standards.

TCWD and other regional water suppliers frequently go beyond what is required by testing for unregulated chemicals that may have known health risks but do not have drinking water standards. Unregulated chemical monitoring helps USEPA and DDW determine where certain chemicals occur and whether new standards need to be established for those chemicals to protect public health.

Through drinking water quality testing programs carried out by TCWD, your drinking water is constantly monitored from source to tap for constituents that are both regulated and unregulated. The State allows water agencies to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, are more than one year old.

Constant Monitoring Ensures Continued Excellence

Sources of Supply


Englebright Dam on the Yuba River

TCWD has a variety of water supply sources, including imported wholesale surface water, imported treated surface water, and local ground water. Primarily, TCWD's Dimension Water Treatment Plant treats imported water from the Colorado River. In addition, TCWD also receives imported treated water from Metropolitan Water District of Southern California (MWDSC) or from the Baker Water Treatment Plant, which utilizes water from both MWDSC and from the Santiago Reservoir (Irvine Lake). MWDSC's imported water sources are the Colorado River and the State Water Project, which draws water from the Sacramento-San Joaquin River Delta.

Basic Information About Drinking Water Contaminants

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 layers of the ground it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal and human activity.

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.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm runoff and residential uses.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm runoff, agricultural application and septic systems.

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

The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that must provide the same protection for public health. 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 at (800) 426-4791.

Disinfectants and Disinfection Byproducts

Disinfection of drinking water was one of the major public health advances in the 20th century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of drinking water treatment today.

Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source of supply (groundwater well or surface water treatment plant). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This "residual" chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home.

However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the USEPA to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average.

Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water. Your drinking water complies with the Stage 1 Disinfectants / Disinfection Byproducts Rule.

Stage 2 of the regulation was finalized by USEPA in 2006, which further controls allowable levels of DBPs in drinking water without compromising disinfection itself. A required distribution system evaluation was completed in 2008 and a Stage 2 monitoring plan has been approved by DDW. Full Stage 2 compliance began in 2012.

Immunocompromised People

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

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

For information about this report, or your water quality in general, please contact Fernando Paludi, General Manager, at (949) 858-0277.

The TCWD Board of Directors meets the third Thursday of each month at 5:30 p.m. at the TCWD's Administration Building located at 32003 Dove Canyon Drive, Trabuco Canyon, CA 92679. The public is encouraged to attend.

For more information about the health effects of the listed contaminants in the enclosed tables, call the USEPA hotline at (800) 426-4791.

TCWD encourages its customers to visit our website at www.tcwd.ca.gov.

Contaminants Not Detected

TCWD safeguards 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 some cases, TCWD goes beyond what is required to monitor for additional contaminants that have known health risks. The contaminants listed here, specifically including Chromium and MTBE, were NOT DETECTED in TCWD'S water during the most recent sampling dates.

1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethene
1,1-Dichloroethene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
1-Phenylpropane
2,2-Dichloropropane
2-Chlorotoluene
4-Chlorotoluene
Atrazine
Benzene
Beryllium
Bromobenzene
Bromochloromethane
Bromomethane
Cadmium
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloromethane
Chromium
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Cyanide
Diazinon
Dibromomethane
Dimethoate
Dichlorofluoromethane
Ethyl benzene
Fecal Coliform & *E.Coli*
Isopropylbenzene
Mercury
Methyl-t-butyl ether
Methylene chloride
n-Butylbenzene
Naphthalene
Nickel
Nitrogen Phosphorous Pesticides
Simazine
Styrene
Tetrachloroethene
Thallium
Thiobencarb
Toulene
Total Coliform Bacteria
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Trichlorofluoromethane
Trichlorotrifluoroethane
Vinyl Chloride
Xylenes

To Safeguard Against Issues that May Affect Your Health

We Comply with All State & Federal Water Quality Regulations

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. TCWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in a home's 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 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 at: www.epa.gov/safewater/lead.

Chart 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 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 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.

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and 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 guideposts and direction 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 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.

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)

Drinking Water Fluoridation

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water. In December 2007, MWDSC joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. MWDSC was in compliance with all provisions of the State's fluoridation system requirements. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million. TCWD's treated water from Dimension Water Treatment Plant is not supplemented with fluoride.

Additional information about the fluoridation of drinking water is available on these websites:

U.S. Centers for Disease Control and Prevention ▪ www.cdc.gov/fluoridation/

State Water Resources Control Board, Division of Drinking Water:

www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html

For more information about MWDSC's program, please contact Edgar G. Dymally at (213) 217-5709, or edymally@mwdh2o.com.

2022 Metropolitan Water District of Southern California Treated Surface Water

Chemical	MCL	PHG (MCLG)	Avg. Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
Radiologicals – Tested in 2020 and 2022						
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND – 3	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	6	ND – 9	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	2	1 – 3	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2022						
Aluminum (ppm)	1	0.6	0.20	0.085 – 0.21	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.107	0.107	No	Refinery Discharge, Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.7	0.7 – 0.8	No	Water Additive for Dental Health
Secondary Standards* – Tested in 2022						
Aluminum (ppb)	200*	600	200	85 – 210	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	101	98 – 104	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	3	3	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	988	965 – 1,010	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	221	213 – 229	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	628	608 – 648	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2022						
Alkalinity, total as $CaCO_3$ (ppm)	Not Regulated	n/a	126	125 – 127	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	68	66 – 70	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as $CaCO_3$ (ppm)	Not Regulated	n/a	278	275 – 281	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	16	16	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	25	24 – 26	n/a	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	8.1	8.1	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.6	4.4 – 4.8	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	98	95 – 102	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.5	2.3 – 2.6	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;
MCL = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal; **TT** = treatment technique *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 (NTU)	0.3	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. **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.

2022 Trabuco Canyon Water District Distribution System Water Quality

Disinfection Byproducts	MCL (MRDL/MRDLG)	Avg. Amount	Range of Detections	MCL Violation?	Typical Source in Drinking Water
Total Trihalomethanes (ppb)	80	51	31 – 64	No	Byproducts of chlorine disinfection
Haloacetic Acids (ppb)	60	16	8 – 24	No	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4 / 4)	1	0.34 – 2.1	No	Disinfectant added for treatment
Aesthetic Quality					
Color (color units)	15*	1	1	No	Erosion of natural deposits
Odor (threshold odor number)	3*	1	1	No	Erosion of Natural Deposits
Turbidity (NTU)	5*	0.22	0.13 – 0.36	No	Erosion of natural deposits

Four locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids – per State Water Resources Control Board Guidelines, average amount shall be reported as the highest of the locational running annual average values for the year; sixteen locations are tested monthly for color, odor and turbidity.
MRDL = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal *Constituent is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Lead and Copper Action Levels at Residential Taps

	Action Level (AL)	Public Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source in Drinking Water
Lead (ppb)	15	0.2	ND	0/33	No	Corrosion of household plumbing
Copper (ppm)	1.3	0.3	ND	0/33	No	Corrosion of household plumbing

Every three years, at least 30 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2021. Lead was detected in 1 sample; none exeeded the regulatory action level.
Copper was detected in 3 samples; none exeeded the regulatory action level. A regulatory action level is the concentration of a constituent, if exceeded triggers treatment or other requirements that a water system must follow.

Unregulated Chemicals Requiring Monitoring in the Distribution System

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Haloacetic Acids (HAA5) (ppb)	n/a	n/a	10.5	4.27 – 17.6	2020
Haloacetic Acids (HAA6Br) (ppb)	n/a	n/a	9.34	3.65 – 16.8	2020
Haloacetic Acids (HAA9) (ppb)	n/a	n/a	18.5	7.25 – 31	2020

2022 Irvine Ranch Water District Baker Water Treatment Plant

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
Radiologicals – Tested in 2022						
Gross Alpha Particle Activity (pCi/L)	15	MCLG = 0	2	2 – 3	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	MCLG = 0	6.2	5.4 – 7.1	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	1.6	1.5 – 1.7	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2022						
Arsenic (ppb)	10	0.004	<2	ND – 2.24	No	Erosion of Natural Deposits
Barium (ppm)	1	2	<0.1	ND – 0.107	No	Refinery Discharge, Erosion of Natural Deposits
Chlorine Dioxide (ppb)	MRDL = 800	MRDLG = 800	68.5	ND – 120	No	Drinking Water Disinfectant Added for Treatment
Chlorite (ppm)	1.0	0.05	<0.05	ND – 0.08	No	Byproduct of Drinking Water Chlorination
Fluoride (ppm)	2.0	1	0.34	0.32 – 0.35	No	Erosion of Natural Deposits; Water Additive for Dental Health
Secondary Standards* – Tested in 2022						
Chloride (ppm)	500*	n/a	101	99.8 – 103	No	Runoff or Leaching from Natural Deposits
Odor (threshold odor number)	3*	n/a	1	1	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	991	979 – 1,006	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	213	201 – 225	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	627	604 – 650	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2022						
Alkalinity, total as $CaCO_3$ (ppm)	Not Regulated	n/a	125	122 – 127	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.137	0.133 – 0.141	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	71.6	69.9 – 73.3	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as $CaCO_3$ (ppm)	Not Regulated	n/a	292	282 – 302	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	17	16 – 18	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	27.6	26.2 – 28.9	n/a	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	8.2	8 – 8.4	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	5.14	4.82 – 5.46	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	98.8	95.5 – 102	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.1	2 – 2.1	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; **NTU** = nephelometric turbidity units; **MCL** = Maximum Contaminant Level; **PHG** = California Public Health Goal; **MCLG** = federal MCL Goal; **MRDL** = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal; **NL** = Notification Level; **n/a** = not applicable; **TT** = treatment technique

*Chemical is regulated by a secondary standard.

Turbidity – combined filter effluent Irvine Ranch Water District Baker Water Treatment Plant	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Chemical
1) Highest single turbidity measurement (NTU)	0.1	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. **NTU** = nephelometric turbidity units
Low turbidity in the 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.

2022 Trabuco Canyon Water District Dimension Water Treatment Plant

Constituent	MCL	PHG, or (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source in Drinking Water
Radiologicals							
Alpha Radiation (pCi/L)	15	(0)	3.1	3.1	No	2017	Erosion of Natural Deposits
Uranium (pCi/L)	20	0.43	3.5	3.5	No	2017	Erosion of Natural Deposits
Inorganic Constituents							
Aluminum (ppm)	1	0.6	0.21	0.05 – 0.25	No	2022	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.13	0.13	No	2022	Erosion of Natural Deposits
Fluoride (ppm) naturally-occurring	2	1	0.53	0.53	No	2022	Erosion of Natural Deposits
Secondary Standards*							
Aluminum (ppb)	200*	600	210	50 – 250	No	2022	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	98	98	No	2022	Leaching from Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	923	923	No	2022	Ions in Water
Sulfate (ppm)	500*	n/a	208	208	No	2022	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	580	580	No	2022	Runoff or Leaching from Natural Deposits
Unregulated Constituents							
Calcium (ppm)	Not Regulated	n/a	77	77	n/a	2022	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	28	28	n/a	2022	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	7.59	7.59	n/a	2022	Hydrogen Ion Concentrations
Potassium (ppm)	Not Regulated	n/a	4.7	4.7	n/a	2020	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	110	110	n/a	2022	Runoff or Leaching from Natural Deposits
Total Alkalinity (ppm as CaCO3)	Not Regulated	n/a	132	132	n/a	2022	Runoff or Leaching from Natural Deposits
Total Hardness (ppm as CaCO3)	Not Regulated	n/a	307	307	n/a	2022	Runoff or Leaching from Natural Deposits
Total Hardness (grains/gal)	Not Regulated	n/a	18.1	18.1	n/a	2022	Runoff or Leaching from Natural Deposits

ppb = parts-per-billion; **ppm** = parts-per-million; **pCi/L** = picoCuries per liter; **NTU** = nephelometric turbidity units; **ND** = not detected; **n/a** = not applicable;
MCL = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal

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

Turbidity – combined filter effluent	Treatment Technique	Turbidity Measurements	TT Violation?	Most Recent Sampling Date	Typical Source in Drinking Water
1) Highest single turbidity measurement (NTU)	1	0.46	No	2022	Soil Run-off
2) Percentage of samples less than 0.2 NTU	95%	100%	No	2022	Soil Run-off

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 Trabuco Canyon Water District's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique."
A treatment technique is a required process intended to reduce the level of constituents in drinking water that are difficult and sometimes impossible to measure directly.

Unregulated Chemicals Requiring Monitoring in the Dimension Water Treatment Plant

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Bromide (ppm)	n/a	n/a	0.034	0.03 – 0.038	2020
Manganese (ppb)**	SMCL = 50	n/a	ND	ND – 0.58	2020
Total Organic Carbon (Unfiltered)(ppm)	n/a	n/a	2.8	2.6 – 3	2020

SMCL = Secondary MCL

**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.

Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. MWDSC tested their source water and treated surface water for *Cryptosporidium* in 2022 but did not detect it. If it ever is detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from USEPA's Safe Drinking Water hotline at (800) 426-4791, or on the web at www.epa.gov/safewater.

Source Water Assessments

Imported (MWDSC) Water Assessment

Every five years, water purveyors are 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 MWDSC's source waters are the Colorado River Watershed Sanitary Survey – 2020 Update, and the State Water Project Watershed Sanitary Survey – 2021 Update.

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 water purveyors to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWDSC completed its SWA in December 2002. The most recent SWA for Santiago Reservoir was completed in 2001. 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 the Watershed Sanitary Surveys or the Source Water Assessments can be found on the TCWD website at www.tcwd.ca.gov or by calling the District at (949) 858-0277.

Groundwater Assessment

An assessment of the drinking water sources for TCWD was completed in 2011. The water sources are considered most vulnerable to contaminants associated with historic gas stations, septic systems, agricultural/irrigation wells, above and below ground storage tanks and mining activities. There have been no contaminants detected in TCWD's water associated with these activities.

The only detections of contaminants are associated with naturally occuring salts, naturally occuring radiochemicals, and low-level organics. A copy of the complete assessment may be viewed at TCWD. You may request that a summary of the assessment be sent to you by contacting the District Secretary at (949) 858-0277.

Every Drop is Golden…

"And it never failed that during the dry years the people forgot about the rich years, and during the wet years they lost all memory of the dry years. It was always that way."

~ John Steinbeck, 1952

Torrential rains. A Sierra snowpack over 200% of normal. Blizzards in Southern California! For those of us weary of drought, this Winter's storms were a welcome relief. But gratifying as the season proved, it does not spell the end of drought. For even with full reservoirs and slowly replenishing aquifers, the cyclical nature of California's water fortunes, coupled with our arid climate, guarantees a return to drought in years to come.

Much has changed since Steinbeck's day. Water conservation has become a way of life. No longer seen as a temporary patch for times of drought, conservation's role as protector of our shared waters is engrained in our behavior. We recognize it doesn't mean we must use less water, only that we not waste the water we have. By saving water today, we ensure we'll have it tomorrow – for every drop is golden!

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 alguien que lo entienda bien.

Trabuco Canyon Water District
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Trabuco Canyon, California 92679