Annual **Drinking Water Quality** Report

- Quality
- Value
- Reliability

City of
FULLERTON
Water System Management

The City of Fullerton's water quality is equal to or better than what is required to safeguard public health.

Your 2023 Water Quality Report

Since 1990, California water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers calendar year 2022 water quality testing**, and has been prepared in compliance with 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.

Englebright Dam on the Yuba River

USEPA and the State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW) are the agencies responsible for establishing drinking water quality standards. To ensure that your tap water is safe to drink, USEPA and SWRCB-DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB-DDW regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. The federal Food and Drug Administration (FDA) also sets regulations for bottled water.

The City of Fullerton vigilantly 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 accordance with the SDWA, the City monitors over 100 compounds in your water supply. This report includes only the compounds actually detected in the water.

In some cases, the City goes beyond what is required by testing for unregulated contaminants that may have known health risks. For example, the Orange County Water District (OCWD), which manages our groundwater basin, monitors our groundwater for regulated and unregulated solvents, herbicides, and pesticides. Unregulated contaminant monitoring helps USEPA determine where certain contaminants occur and whether it needs to establish regulations for those contaminants.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

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. Para mas información o traducción, por favor llamen a: (714) 738-6863

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong cộng dồng quý vị. Hãy nhờ người thông dịch, hoặc hỏi một người bạn biết rõ về vấn đề này.

يحتوي هذا التقرير على معلومات هامة عن نوعية ماء الشرب في منطقتك. يرجى ترجمته، أو ابحث التقرير مع صديق لك يفهم هذه المعلومات جيداً.

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。

이 보고서에는 귀하가 거주하는 지역의 수질에 관한 중요한 정보가 들어 있습니다. 이것을 번역하거나 충분히 이해하시는 친구와 상의하십시오.

この資料には、あなたの飲料水についての大切な情報が書かれています。内容をよく理解するために、日本語に翻訳して読むか説明を受けてください。

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

For information about this report, or your water quality in general, please contact the City of Fullerton Water Quality Specialist at (714) 738-2835. The City Council meets on the first and third Tuesdays of the month at 5:30 pm.

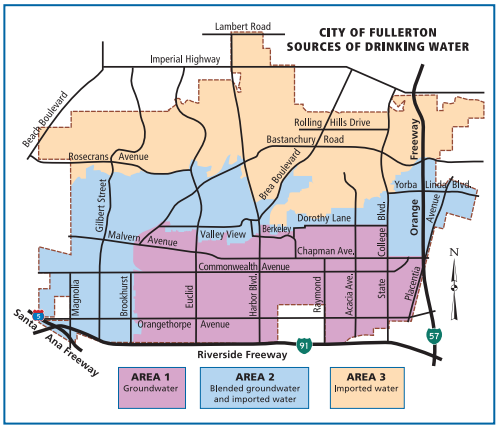
The meetings are held in the Council Chambers at City Hall, 303 W. Commonwealth Avenue, Fullerton. Please feel free to participate in these meetings.

For more information about the health effects of the listed contaminants in the following tables, call the U.S. Environmental Protection Agency hotline: (800) 426-4791.

Constant Monitoring Ensures Continued Excellence

Sources of Supply

Your drinking water is a blend of mostly groundwater from the Orange County groundwater basin and also surface water imported by the Metropolitan Water District of Southern California (MWD). MWD's imported water sources are a blend of State Water Project water from northern California and water from the Colorado River Aqueduct. Your groundwater comes from a natural underground reservoir that stretches from the Prado Dam and fans across the northwestern portion of Orange County, excluding the communities of Brea and La Habra, and stretching as far south as the El Toro 'Y'.

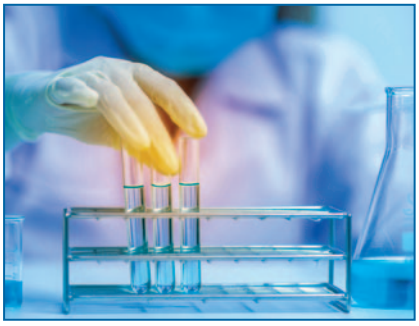


The Area Map presented here will help you determine what source of water you are most likely to receive. Area 1 receives primarily groundwater and Area 3 imported water. Area 2 receives a mixture of groundwater and imported water.

Fullerton's water system was built with maximum flexibility. We have 8 active wells, located in the southern portion of Fullerton and north Anaheim, and 7 active imported water connections. This means that under emergency, drought or other unusual conditions, the source of water to any area may change. The Area Map reflects the source of water each area receives a majority of the time.

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:

- **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 stormwater runoff, agricultural application and septic systems.
- **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.
- **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 stormwater runoff and residential uses.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.

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

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.

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.

MWD 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 visit them on the web at: www.epa.gov/safewater.

To Safeguard Against Issues that May Affect Your Health

We Comply with All State & Federal Water Quality Regulations

Disinfectants & 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 U.S. Environmental Protection Agency (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.

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 SWRCB-DDW. Full Stage 2 compliance began in 2012. Your drinking water complies with the Stage 1 and Stage 2 Disinfectants/ Disinfection Byproducts Rule.

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, MWD joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. MWD was in compliance with all provisions of the State's fluoridation system requirements.

Our local groundwater is not supplemented with fluoride. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

There are many places to go for additional information about the fluoridation of drinking water:

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

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

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

PFAS

Per- and Polyfluoroalkyl Substances (PFAS) are a group of man-made chemicals prevalent in the environment that have been used in a variety of consumer products since the 1940s. PFAS chemicals have been detected in water throughout the nation. Studies have shown these chemicals may pose a hazard to human health.

The USEPA and the State Water Resources Control Board have set health based advisories for PFAS, which if exceeded require a water system to notify their governing board (or City Council), and for the source to be removed from service or provide treatment.

In August 2019 and February 2020 the DDW set the current standards for Notification Levels and Response Levels, respectively, for Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS). In March 2021, DDW set the current standards for Notification Level and Response Level for Perfluorobutanesulfonic Acid (PFBS). In October 2022, DDW set the current standards for Notification Level and Response Level for Perfluorohexanesulfonic Acid (PFHxS). Subsequent testing detected levels at or above those levels, and the City responded by temporarily discontinuing use of sources until appropriate treatment can be installed. In June 2021 we brought our first PFAS treatment plant online and a second treatment plant is currently under construction scheduled to be completed in late 2023.

Additional PFAS information is available from the DDW at: www.waterboards.ca.gov/pfas/.

2022 Metropolitan Water District of Southern California Treated Surface Water

Constituent	MCL	PHG (MCLG)	Diemer Average	Weymouth Average	Range of Detections	MCL Violation?	Typical Source in Drinking Water
Radiologicals – Tested in 2020 and 2022							
Combined Radium (pCi/L)	5	(0)	ND	ND	ND – 1	No	Erosion of Natural Deposits
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND	ND – 3	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	6	6	ND – 9	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	2	2	1 – 3	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2022							
Aluminum (ppm)	1	0.6	0.14	0.156	0.058 – 0.24	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.107	0.107	0.107	No	Refinery Discharge, Erosion of Natural Deposits
Bromate (ppb)	10	0.1	ND	ND	ND – 7.6	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm) treatment-related	2	1	0.7	0.7	0.6 – 0.8	No	Water Additive for Dental Health
Secondary Standards* – Tested in 2022							
Aluminum (ppb)	200*	600	140	156	58 – 240	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	101	102	98 – 105	No	Runoff or Leaching from Natural Deposits
Color (Color Units)	15*	n/a	1	1	1	No	Runoff or Leaching from Natural Deposits
Odor (Threshold Odor Number)	3*	n/a	3	3	3	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	988	992	964 – 1,020	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	221	222	212 – 232	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	628	638	608 – 648	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2022							
Alkalinity, total (ppm as $CaCO_3$)	Not Regulated	n/a	126	127	125 – 128	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	Not Regulated	n/a	0.13	0.14	0.13 – 0.14	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	68	70	66 – 71	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (ppm as $CaCO_3$)	Not Regulated	n/a	278	279	275 – 281	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gal)	Not Regulated	n/a	16	16	16	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	25	26	24 – 26	n/a	Runoff or Leaching from Natural Deposits
pH (units)	Not Regulated	n/a	8.1	8.1	8.1	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.6	4.6	4.4 – 4.8	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	98	100	95 – 103	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	Not Regulated	n/a	2.5	2.4	1.7 – 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; **n/a** = not applicable; **TT** = treatment technique
MCL = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal; **NL** = Notification Level

*Chemical is regulated by a secondary standard.

Turbidity – combined filter effluent Metropolitan Water District Filtration Plants	Treatment Technique	Turbidity Measurements Diemer	 Weymouth	TT Violation?	Typical Source In Drinking Water
1) Highest single turbidity measurement (NTU)	0.3	0.03	0.04	No	Soil Runoff
2) Percentage of samples less than or equal to 0.3 NTU	95%	100%	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)**	SMCL = 50	n/a	2.2	0.8 – 3.3	2018

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.

Table Legend

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and SWRCB-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 SWRCB-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.

Measurement Information

In order to ensure that tap water is safe to drink, USEPA and SWRCB-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 Fullerton Water System detected above the reporting limits during the 2022 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, 2022**. The SWRCB-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 Fullerton Water System contracts with state certified, independent laboratories to perform most of its water quality testing.

How are Contaminants Measured?

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

2022 City of Fullerton Groundwater Quality

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Contaminant
Radiologicals							
Uranium (pCi/L)	20	0.43	3	1.4 – 6.8	No	2021	Erosion of Natural Deposits
Organic Chemicals							
Tetrachloroethylene, PCE (ppb)	5	0.06	<0.5	ND – 1.5	No	2022	Industrial Waste Discharge
Trichloroethylene, TCE (ppb)	5	1.7	<0.5	ND – 0.9	No	2022	Industrial Waste Discharge
Inorganic Chemicals							
Fluoride (ppm)	2	1	0.5	0.4 – 0.56	No	2022	Erosion of Natural Deposits
Nitrate (ppm as N)	10	10	2.1	0.96 – 5.1	No	2022	Fertilizers, Septic Tanks
Nitrate+Nitrite (ppm as N)	10	10	2.1	0.96 – 5.1	No	2022	Fertilizers, Septic Tanks
Perchlorate (ppb)	6	1	<2	ND – 2.5	No	2022	Industrial Discharge
Selenium (ppb)	50	30	<5	ND – 9.3	No	2022	Erosion of Natural Deposits
Secondary Standards*							
Chloride (ppm)	500*	n/a	70	62 – 83	No	2022	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	785	680 – 1,080	No	2022	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	136	114 – 207	No	2022	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	490	410 – 690	No	2022	Erosion of Natural Deposits
Turbidity (NTU)	5*	n/a	0.1	ND – 0.15	No	2022	Erosion of Natural Deposits
Unregulated Chemicals							
Alkalinity, total as $CaCO_3$ (ppm)	Not Regulated	n/a	141	110 – 230	n/a	2022	Erosion of Natural Deposits
Bicarbonate (ppm as HCO_3)	Not Regulated	n/a	172	135 – 280	n/a	2022	Erosion of Natural Deposits
Boron (ppm)	NL = 1	n/a	0.18	0.1 – 0.22	n/a	2022	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	71	55 – 97	n/a	2022	Erosion of Natural Deposits
Hardness, total (grains per gallon)	Not Regulated	n/a	14	10 – 22	n/a	2022	Erosion of Natural Deposits
Hardness, total as $CaCO_3$ (ppm)	Not Regulated	n/a	242	179 – 378	n/a	2022	Erosion of Natural Deposits
Hexavalent Chromium (ppb)	Not Regulated	0.02	<1	ND – 1.2	n/a	2022	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	15	10 – 33	n/a	2022	Erosion of Natural Deposits
Perfluoro Butane Sulfonic Acid (ppt)	NL = 500	n/a	<4	ND – 8.4	n/a	2022	Industrial Waste Discharge
Perfluoro Heptanoic Acid (ppt)	Not Regulated	n/a	<4	ND – 5.8	n/a	2022	Industrial Waste Discharge
Perfluoro Hexane Sulfonic Acid (ppt)	NL = 3	n/a	4.7	ND – 8.1	n/a	2022	Industrial Waste Discharge
Perfluorohexanoic Acid (ppt)	Not Regulated	n/a	<4	ND – 13	n/a	2022	Industrial Waste Discharge
Perfluoro Octane Sulfonic Acid (ppt)	NL = 6.5	n/a	9.1	ND – 15	n/a	2022	Industrial Waste Discharge
Perfluoro Octanoic Acid (ppt)	NL = 5.1	n/a	4.9	ND – 11	n/a	2022	Industrial Waste Discharge
pH (pH unit)	Not Regulated	n/a	7.9	7.8 – 7.9	n/a	2022	Erosion of Natural Deposits
Potassium (ppm)	Not Regulated	n/a	3.8	3.2 – 4	n/a	2022	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	64	48 – 83	n/a	2022	Erosion of Natural Deposits

ppb = parts-per-billion; **ppm** = parts-per-million; **ppt** = parts-per-trillion; **pCi/L** = picoCuries per liter; **NTU** = nephelometric turbidity units; **ND** = not detected; **n/a** = not applicable;**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; **µmho/cm** = micromhos per centimeter

*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	0.12	0.073 – 0.23	2019
Germanium (ppb)	n/a	n/a	0.03	ND – 0.4	2019
Manganese (ppb)**	SMLC = 50	n/a	0.96	ND – 5.8	2019
Total Organic Carbon (Unfiltered) (ppm)	n/a	n/a	0.25	0.17 – 0.4	2019

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.

Source Water Assessments

Imported (MWD) Water Assessment

Every five years, MWD is required by SWRCB-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.

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

An assessment of the drinking water sources for the City of Fullerton was completed in May 2002. The groundwater sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: Chemical/petroleum processing/storage, dry cleaners, gas stations, known contaminant plumes, metal plating/finishing/fabricating, and plastics/synthetics producers. The groundwater sources are considered most vulnerable to the following: Airports – maintenance/fueling areas, confirmed leaking underground storage tanks, and high density housing.

A copy of the complete assessment is available at: State Water Resources Control Board, Division of Drinking Water, 605 W. Santa Ana Boulevard, Bldg. 28, Room 325, Santa Ana, California 92701.

You may request a summary of the assessment by contacting: Water Quality Specialist, City of Fullerton, 1580 W Commonwealth Avenue, Fullerton, California 92833-2728, Phone: (714) 738-2835.

2022 City of Fullerton Distribution System Water Quality

Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	30	5.9 – 31	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	16	1 – 19	No	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	1.3	ND – 2.9	No	Disinfectant Added for Treatment
Fluoride (ppm)	2	0.5	0.4 – 0.7	No	Erosion of Natural Deposits
Aesthetic Quality					
Color (Color Units)	15*	ND	ND – 1	No	Erosion of Natural Deposits
Odor (Threshold Odor Number)	3*	ND	ND – 0.1	No	Erosion of Natural Deposits
pH (pH Units)	Not Regulated	7.6	6.1 – 9.4	No	Acidity, Hydrogen Ions
Turbidity (NTU)	5*	ND	ND – 0.7	No	Erosion of Natural Deposits

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids. Thirty locations are tested monthly for color, odor and turbidity.
MRDL = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal;
< = detected but average is less than the reporting limit; **NTU** = nephelometric turbidity unit; **ND** = not detected

*Contaminant is regulated by a secondary standard to maintain aesthetic qualities.

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 of Contaminant
Lead (ppb)	15	0.2	ND	0 / 52	No	Corrosion of Household Plumbing
Copper (ppm)	1.3	0.3	0.14	0 / 52	No	Corrosion of Household Plumbing

Every three years, at least 50 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2021.
Copper was found in 31 homes; none exceeded the regulatory action level (AL). Lead was found in 1 home; none exceeded the regulatory AL.
The regulatory action level is the concentration which, if exceeded in more than ten percent of the homes tested, triggers treatment or other requirements that a water system must follow.

The City of Fullerton complies with the lead and copper ALs.

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	2.5	ND – 4.9	2019
Bromodichloroacetic Acid (ppb)	n/a	n/a	0.84	ND – 2.1	2019
Chlorodibromoacetic Acid (ppb)	n/a	n/a	0.82	ND – 1.6	2019
Dibromoacetic Acid (ppb)	n/a	n/a	1.7	ND – 2.5	2019
Dichloroacetic Acid (ppb)	n/a	MCLG = 0	2.8	0.4 – 8.9	2019
Monobromoacetic Acid (ppb)	n/a	n/a	0.2	ND – 0.5	2019
Monochloroacetic Acid (ppb)	n/a	MCLG = 70	0.1	ND – 3.1	2019
Trichloroacetic Acid (ppb)	n/a	MCLG = 20	0.7	ND – 1.9	2019

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 City of Fullerton is responsible for providing high quality drinking water, but cannot control the variety of materials used in 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, (800) 426-4791, or at: www.epa.gov/safewater/lead.

Nitrate Advisory

Nitrate in drinking water at levels above 10 milligrams per liter (mg/L) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin.

Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies.

If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Where Does Our Water Come From?

...and How Does It Get to Us?

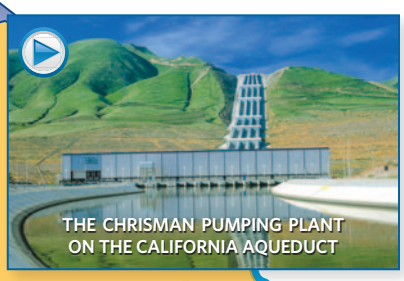
Have you ever wondered where your water comes from? Here in the City of Fullerton our water is drawn from local groundwater supplies then blended with water imported from both Northern California and the Colorado River.

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 25 million people statewide.

Managed by the California Department of Water Resources, 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, and fed by snow melt from the Sierra Nevada Mountains, flows into the Sacramento and San Joaquin rivers, and from there into reservoirs in the Bay-Delta region.

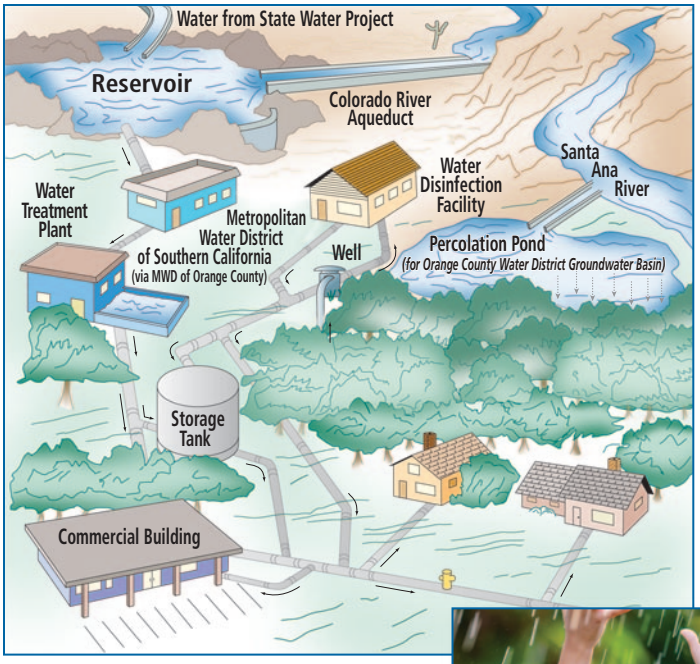
From the Bay-Delta, giant pumps lift the water into the 444-mile-long California Aqueduct, there to flow southward to cities and farms in Central and Southern California. Composed mainly of concrete-lined canals, the Aqueduct also includes over 20 miles of tunnels, more than 130 miles of pipelines, and 27 miles of siphons. 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.

Is it any wonder the State Water Project is the largest single consumer of power in the State of California?



Managed by the Metropolitan Water District of Southern California, the Colorado River Aqueduct begins near Parker Dam on the Colorado River. There, the Gene Pumping Station lifts the water over 300 feet as it 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 tunnels, buried conduits and siphons. All told, the water is lifted four times, a total of more than 1,300 feet.

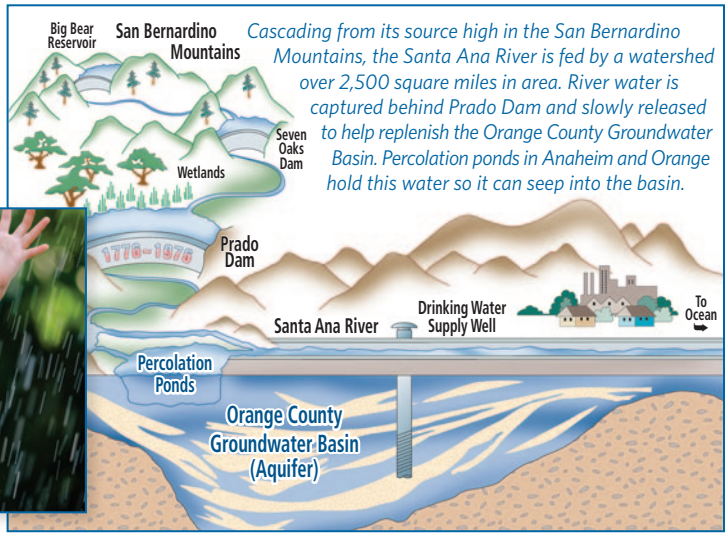
After its journey across the Mojave Desert, the water descends into the Coachella Valley and through the San Gorgonio Pass. Near Cabazon, the aqueduct flows underground, passing beneath the San Jacinto Mountains and continuing until it reaches its terminus at Lake Mathews. From there, 156 miles of distribution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



How Does Our Water Get to Us?

Importing water from hundreds of miles away is only the start to providing you clean, fresh water. Once the water is in southern California, it is distributed to individual agencies and municipalities throughout the southland by the Metropolitan Water District of Southern California.

The Orange County Water District, which manages the groundwater basin beneath the county, ensures the quality and supply of groundwater throughout its service area. The City of Fullerton sits atop the county aquifer and draws some of its water from this local source.



Cascading from its source high in the San Bernardino Mountains, the Santa Ana River is fed by a watershed over 2,500 square miles in area. River water is captured behind Prado Dam and slowly released to help replenish the Orange County Groundwater Basin. Percolation ponds in Anaheim and Orange hold this water so it can seep into the basin.

The City of Fullerton – Water System Management vigorously works to ensure the safety of your drinking water and, in conjunction with the Metropolitan Water District and OCWD, continuously monitors the water to verify adherence with drinking water regulations.

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

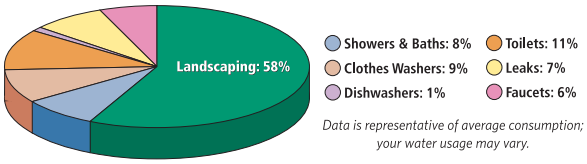
Torrential rains. A Sierra snowpack over 200% of normal. Blizzards in Southern California! For those of us weary of drought, this Winter's storms were a welcome relief. But gratifying as the season proved, it does not spell the end of drought. For even with full reservoirs and slowly replenishing aquifers, 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!

Where Do We Use Water the Most?

Outdoor watering of lawns and gardens makes up approximately 60% of home water use. By reducing your outdoor water use — by either cutting back on irrigation or planting more drought tolerant landscaping — you can dramatically reduce your overall water use.

Save the most where you use the most: Make your outdoor use efficient.



Data is representative of average consumption; your water usage may vary.

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
California Department of Water Resources: www.water.ca.gov
The Water Education Foundation: www.watereducation.org

To learn more about **Water Conservation & Rebate Information**:
www.bewaterwise.com • www.SoCalWaterSmart.com

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

City of Fullerton – Water System Management
1580 W Commonwealth Avenue • Fullerton, California 92833-2728
www.cityoffullerton.com