

WATER QUALITY REPORT 2020



EOCWD
EAST ORANGE COUNTY
WATER DISTRICT

YOUR 2020 WATER QUALITY REPORT

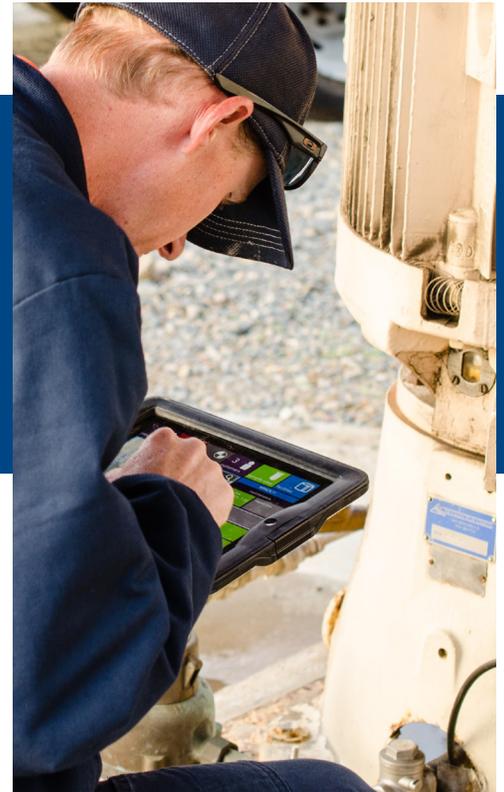
Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. This year's report covers calendar year 2019 drinking water quality testing and reporting.

The East Orange County Water District (EOCWD) 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.

In some cases, EOCWD goes beyond what is required by testing for unregulated chemicals that may have known health risks but do not have drinking water standards. For example, the Orange County Water District (OCWD), which manages the groundwater basin, and

the Metropolitan Water District of Southern California (MWDSC), which supplies treated imported surface water to EOCWD, test for unregulated chemicals in our water supply. 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 OCWD for groundwater, MWDSC for treated surface water and EOCWD for the water distribution system, your drinking water is consistently monitored from source to tap for regulated and unregulated constituents. 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. Please contact East Orange County Water District at 714-538-5815 if you need assistance translating this information.

Este informe contiene información muy importante sobre su agua potable. Para más información ó traducción, favor de contactar a East Orange County Water District.

Telefono: (714) 538-5815.

QUESTIONS ABOUT YOUR WATER? CONTACT US FOR ANSWERS.

For information about this report, or your water quality in general, please contact Jerry Mendzer, Operations Manager, at (714) 538-5815. The EOCWD Board of Directors meets on the 3rd Thursday of each month at 5:00 p.m. Meetings are held at 185 N. McPherson Road, Orange. For more information about the health effects of the listed contaminants in the following tables, call the USEPA hotline at (800) 426-4791.

THE QUALITY OF YOUR WATER IS OUR PRIMARY CONCERN

SOURCES OF SUPPLY

Orange County's water supplies are a blend of groundwater managed by the OCWD and water imported from Northern California and the Colorado River by the Municipal Water District of Orange County (MWDOC) via MWDCS. Groundwater comes from a natural underground aquifer that is replenished with water from the Santa Ana River, local rainfall and imported water. The groundwater basin covers 350 square miles and lies beneath north and central Orange County from Irvine to the Los Angeles County border and from Yorba Linda to the Pacific Ocean. More than 20 cities and retail water districts draw from the basin to provide water to homes and businesses. In south Orange County, nearly 100 percent of the water is imported and delivered to the cities and retail water districts, where it is stored in above-ground reservoirs and tanks before being sent to homes and businesses. In 2019, East Orange County Water District imported 72% surface water while 28% was local groundwater.

ORANGE COUNTY'S WATER FUTURE

For years, Orange County has enjoyed an abundant, seemingly endless supply of high-quality water. However, as water demand continues to increase statewide, we must be even more conscientious about our water supply and maximize the efficient use of this precious natural resource.

SAVE MONEY AND WATER: LEARN TO STOP LEAKS IN YOUR HOME

Nationwide, more than 1 trillion gallons of water are lost annually due to household leaks. That's equal to the annual water use of more than 11 million homes. The average household can waste more than 10,000 gallons each year due to correctable leaks. That's enough to wash 270 loads of laundry!

Ten percent of homes have leaks that waste 90 gallons or more per day! Common sources include toilets, faucets, showerheads, and landscape irrigation. But you should also consider less obvious sources of leaks: water heaters, ice makers, dishwashers, and filtration systems. Many of these are easily correctable and fixing them can save about 10 percent of the average water bill.

Be sure to check your toilet for leaks at least once a year. Put food coloring in the tank. If it seeps into the bowl without flushing, there's a leak. And if your toilet flapper doesn't close properly after flushing, replace it. Remember, one drop a second adds up to five gallons lost per day! So regularly check your faucets and showerheads, as well as hoses and connectors.

Many household leaks can be solved with simple tools and a little education—and fortunately, Do-It-Yourselfers have access to multiple resources. But even if you must pay for repairs, you will still save money in the long run. For more information on water conservation, visit www.ocwatersmart.com.

OCWD and MWDOC work cooperatively to evaluate new and innovative water management and supply development programs, including water reuse and recycling, wetlands expansion, recharge facility construction, ocean and brackish water desalination, surface storage, water use efficiency programs, improved stormwater and dry weather urban runoff recovery. These efforts are helping to enhance long-term countywide water reliability and water quality.

A healthy water future for Orange County rests on finding and developing new water supplies, as well as protecting and improving the quality of the water that we have today. Your local and regional water agencies are committed to making the necessary investments today in new water management projects to ensure an abundant and high-quality water supply for our future.



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:

- ◆ **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.
- ◆ **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.
- ◆ **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- ◆ **Organic chemical contaminants**, including synthetic and volatile organic chemicals, 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.

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.

FEDERAL AND STATE WATER QUALITY REGULATIONS

WATER QUALITY ISSUES THAT COULD AFFECT YOUR HEALTH

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. 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.

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

U.S. Centers for Disease Control and Prevention:

1-888-CDC-INFO (1-888-232-4636)

www.cdc.gov/fluoridation/

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

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

American Dental Association

[www.ada.org/en/public-programs/advocating-for-the-public/
fluoride-and-fluoridation](http://www.ada.org/en/public-programs/advocating-for-the-public/fluoride-and-fluoridation)

American Water Works Association:

www.awwa.org

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. East Orange County Water District 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 between 9 a.m. and 5 p.m. Eastern Time (6 a.m. to 2 p.m. in California), or at: www.epa.gov/safewater/lead.

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 (ground water 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 DBPs. The Safe Drinking Water Act requires 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.



WATER QUALITY ISSUES THAT COULD AFFECT YOUR HEALTH

IMMUNO-COMPROMISED PEOPLE

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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.

CHLORAMINES

EOCWD imports water from MWDSC and produces water using chloramines, a combination of chlorine and ammonia, as its drinking water disinfectant. Chloramines are effective killers of bacteria and other microorganisms that may cause disease. Chloramines form fewer disinfection byproducts and have no odor when used properly. People who use kidney dialysis machines may want to take special precautions and consult their physician for the appropriate type of water treatment. Customers who maintain fish ponds, tanks or aquaria should also make necessary adjustments in water quality treatment, as these disinfectants are toxic to fish.

For further information or if you have any questions about chloramines please visit our website, www.eocwd.com, or call (714) 538-5815.

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 2019 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 guide-lines 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 between 10 a.m. and 4 p.m. Eastern Time (7 a.m. to 1 p.m. in California).

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 chart in this report shows 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** 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.

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)

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 guide posts and direction for water management practices. The chart in this report includes 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.



SOURCEWATER ASSESSMENTS

GROUNDWATER ASSESSMENT

An assessment of the drinking water sources for EOCWD was completed in December 2002. The ground water sources are considered most vulnerable to the following activities associated with nitrates detected in the water supply: historic waste dumps/landfills, and past agricultural activities and application of fertilizers. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: dry cleaners and gas stations.

A copy of the complete assessment is available at SWRCB, Division of Drinking Water, 2 MacArthur Place, Suite 150, Santa Ana CA 92707. You may request a summary of the assessment by contacting Jerry Mendzer at EOCWD, (714) 538-5815.

IMPORTED (MWDSC) WATER ASSESSMENT

Every five years, MWDSC is required by DDW to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters. The most recent watershed sanitary surveys for MWDSC's source waters are the Colorado River Watershed Sanitary Survey – 2015 Update, and the State Water Project Watershed Sanitary Survey – 2016 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 MWDSC to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWDSC 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 MWDSC at (800) CALL-MWD (225-5693).



2019 EAST ORANGE COUNTY WATER DISTRICT DRINKING WATER QUALITY LOCAL GROUNDWATER AND METROPOLITAN WATER DISTRICT TREATED SURFACE WATER

Chemical	MCL	PHG (MCLG)	Average Local Groundwater	Average MWD Surface Water	Range of Detections	MCL Violation?	Typical Source of Contaminant
Inorganic Chemicals - Tested in 2019							
Aluminum (ppm)	1	0.6	ND	0.124	ND - 0.065	No	Treatment Process Residue, Natural Deposits
Bromate (ppb)	10	0.1	ND	2	ND - 5.9	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm) naturally-occurring	2	1	0.16	NR	0.13 - 0.18	No	Erosion of natural deposits
Fluoride (ppm) treatment-related	2	1	NR	0.7	0.1 - 0.9	No	Water additive for dental health
Nitrate as N (ppm)	10	10	3.74	0.5	0.5 - 4.04	No	Agriculture runoff and sewage
Nitrate and Nitrite as N (ppm)	10	10	3.75	0.5	0.5 - 4.05	No	Agriculture runoff and sewage
Secondary Standards* - Tested in 2019							
Aluminum (ppb)	200*	600	ND	124	ND - 65	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	107	56	53 - 107	No	Runoff or leaching from natural deposits
Color (color units)	15*	n/a	ND	ND	ND - 1	No	Naturally-occurring organic materials
Odor (odor units)	3*	n/a	ND	ND	ND - 1	No	Naturally-occurring organic materials
Specific Conductance (µmho/cm)	1,600*	n/a	954	514	508 - 959	No	Substances that form ions in water
Sulfate (ppm)	500*	n/a	124	91	89 - 125	No	Runoff or leaching of natural deposits
Total Dissolved Solids (ppm)	1,000*	n/a	552	304	296 - 576	No	Runoff or leaching of natural deposits
Unregulated Chemicals - Tested in 2019							
Alkalinity (ppm)	Not Regulated	n/a	182	72	69 - 189	n/a	Runoff or leaching from natural deposits
Boron (ppm)	NL = 1	n/a	0.13	0.12	0.11 - 0.14	n/a	Runoff or leaching from natural deposits
Calcium (ppm)	Not Regulated	n/a	100	30	29 - 102	n/a	Runoff or leaching from natural deposits
Hardness, total (ppm)	Not Regulated	n/a	348	127	124 - 354	n/a	Runoff or leaching from natural deposits
Hardness, total (grains/gal)	Not Regulated	n/a	20	7.4	7.2 - 21	n/a	Runoff or leaching from natural deposits
Magnesium (ppm)	Not Regulated	n/a	23	14	13 - 24	n/a	Runoff or leaching from natural deposits
Perfluorohexanoic Acid (ppt)	Not Regulated	n/a	ND	2.3	ND - 2.3	n/a	Industrial Discharge
Perfluoro octane sulfonic acid (ppt)	NL = 6.5	n/a	28.9	ND	ND - 31.6	n/a	Industrial Discharge
Perfluoro octanoic acid (ppt)	NL = 5.1	n/a	23.8	ND	ND - 27.6	n/a	Industrial Discharge
pH (pH units)	Not Regulated	n/a	7.9	8.4	7.8 - 8.5	n/a	Hydrogen ion concentration
Potassium (ppm)	Not Regulated	n/a	2.1	2.8	2.1 - 2.9	n/a	Runoff or leaching from natural deposits
Sodium (ppm)	Not Regulated	n/a	65.4	56	54 - 66.6	n/a	Runoff or leaching from natural deposits
Total Organic Carbon (ppm)	TT	n/a	0.17	2.4	ND - 2.6	n/a	Various natural and man-made sources

ppb = parts-per-billion; ppm = parts-per-million; ntu = nephelometric turbidity units; µmho/cm = micromhos per centimeter; NR = Not Required to be analyzed; ND = not detected; MCL = Maximum Contaminant Level; PHG = California Public Health Goal; NL = Notification Level; n/a = not applicable; *Contaminant 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 Contaminant
1) Highest single turbidity measurement	0.3 NTU	0.05	No	Soil run-off
2) Percentage of samples less than 0.3 NTU	95%	100%	No	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.

Low turbidity in Metropolitan'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 contaminants in drinking water that are difficult and sometimes impossible to measure directly. NTU = nephelometric turbidity units

2019 EAST ORANGE COUNTY WATER DISTRICT DISTRIBUTION SYSTEM WATER QUALITY

Disinfection Byproducts	MCL (MRDL/MRDLC)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	23	18 - 27	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	10	1.2 - 15	No	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	1.08	0.52 - 1.9	No	Disinfectant Added for Treatment
Aesthetic Quality					
Color (color units)	15*	ND	ND - 2	No	Erosion of Natural Deposits
Turbidity (ntu)	5*	ND	ND - 0.15	No	Erosion of Natural Deposits

Two locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; one location is tested monthly for color, odor and turbidity. Odor was not detected in 2019.

MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal; *Contaminant 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 of Contaminant
Lead (ppb)	15	0.2	ND	0/20	No	Corrosion of Household Plumbing
Copper (ppm)	1.3	0.3	0.162	0/20	No	Corrosion of Household Plumbing

Twenty residences were tested for lead and copper at-the-tap during 2018. Lead was not detected in any sample. Copper was detected in 14 samples but none exceeded the action level. The regulatory action level is the concentration of lead or copper which, if exceeded in more than ten percent of the homes tested, triggers treatment or other requirements that a water system must follow.

In 2019, one school submitted a request to be sampled for lead. More information on school lead testing can be found at <https://www.arcgis.com/apps/MapJournal/index.html?appid=9d17731cae2c4452957fad5d8ee2d75>

YOUR DRINKING WATER REMAINS SAFE AND RELIABLE

WHAT IS PFAS? (PER- AND POLYFLUOROALKYL SUBSTANCES)

Per- and Polyfluoroalkyl Substances (PFAS) are a group of man-made chemicals that are resistant to heat, water, oils, and stains. PFAS are widely used in a variety of industrial and consumer products. The California State Water Resources Control Board's Division of Drinking Water (DDW) recently required testing by water agencies across the state for two PFAS compounds in groundwater wells. At EOCWD, we currently obtain a majority of our water from our local groundwater basin, which is managed by the Orange County Water District.

Wells utilized by EOCWD tested positive for PFAS compounds which exceeded the notification levels established by DDW of 6.5 ppt (parts per trillion) for Perfluoro octane sulfonic acid (PFOS) and 5.1 ppt for Perfluoro octanoic acid (PFOA). Please note that response levels of 10 ppt for PFOA and 40 ppt for PFOS were set by DDW. Assembly Bill 756 requires wells with detections above the response level to be taken out of service or public notification.

EOCWD prior to receiving the initial sample results, turned off its wells and stopped serving groundwater to its customers. We began using imported water which has not been impacted by this chemical. We took this action because we value your trust, and we wanted to ensure that you know that we will do whatever it takes to retain that trust.

We continue to be involved in conversations on treatment options to allow us to again utilize our groundwater resources, which are historically less costly than imported water sources. The ongoing costs to import water as well as to design and implement treatment options may eventually result in the need for a rate change. If that occurs, we will alert you through the state-required notification process, which includes an opportunity for public engagement.

Additional information on PFAS may be found on the California Water Board's Division of Drinking Water website, www.waterboards.ca.gov/pfas/

Further information about updated regulation standards can be found in a release issued by the California Water Boards at www.waterboards.ca.gov/press_room/press_releases/2020/pr02062020_pfoa_pfos_response_levels.pdf

View Orange County Water District's resource page concerning PFAS at www.ocwd.com/what-we-do/water-quality/pfoapfos/

The Federal EPA also recently announced plans to further address PFAS at the national level. More information is available on their website at www.epa.gov/newsreleases/epa-announces-proposed-decision-regulate-pfoa-and-pfos-drinking-water

PFAS CAN BE FOUND IN:



COVID-19 CONCERNS

STATE-REQUIRED TREATMENT PROCESS REMOVES VIRUSES, INCLUDING COVID-19

California's comprehensive and safe drinking water standards require a multistep treatment process that includes filtration and disinfection. This process removes and kills viruses, including coronaviruses such as COVID-19, as well as bacteria and other pathogens.

The State Water Board's Division of Drinking Water establishes and enforces drinking water standards that ensure the delivery of pure, safe, and potable water. In addition to health-based water quality standards, treatment facilities must comply with stringent performance measures to ensure treatment processes are continuously operating at peak performance.

The treatment process must destroy at least 99.99% of viruses. The limited number that might pass through the removal process are quickly inactivated in the disinfection process, typically in less than 10 minutes. All treatment facilities for surface water sources in California are required to maintain disinfection facilities sufficient to destroy giardia cysts, which are much more resilient than viruses.

COVID-19 is transmitted person to person, not through water, according to the Centers for Disease Control and Prevention.

Public water systems that utilize groundwater sources maintain protective physical measures, including soil barriers, to ensure that water sources are protected from pathogens, including viruses. In addition, most of these systems use chlorine disinfection to inactivate viruses or bacteria that might find their way into the water.

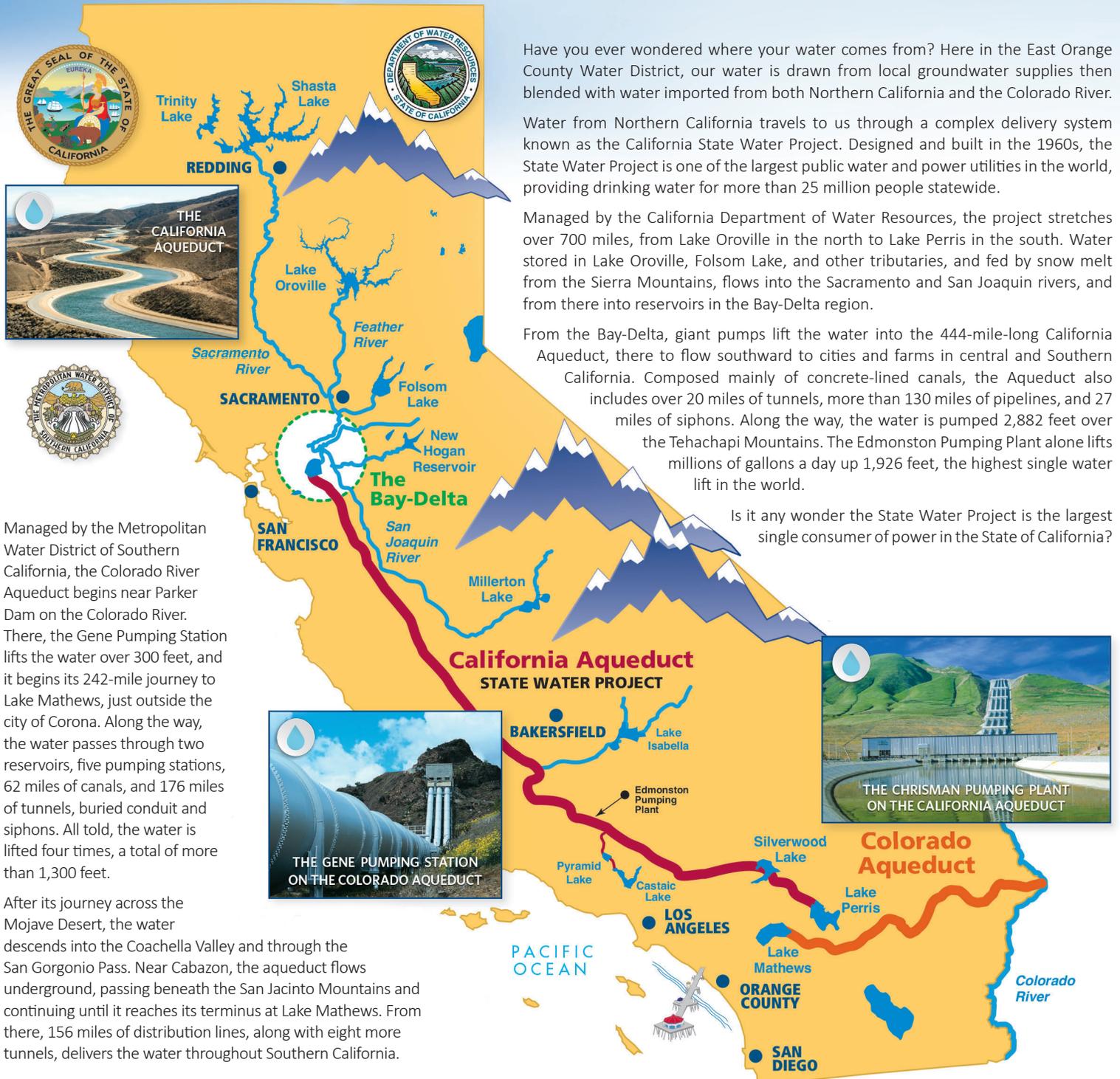
All public water systems in California are routinely monitored for bacteria to ensure that water delivered to customers is free of disease-causing agents. Other parameters, including temperature, pH, turbidity, chlorine residual, electrical conductivity, lead and copper, corrosion indices and disinfection byproducts, are monitored to alert operators about changing water quality conditions and avert potential problems.

The State Water Board works closely with local water systems to ensure the safety of water that flows through public water systems to residential customers.

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 East Orange County Water District, 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 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.

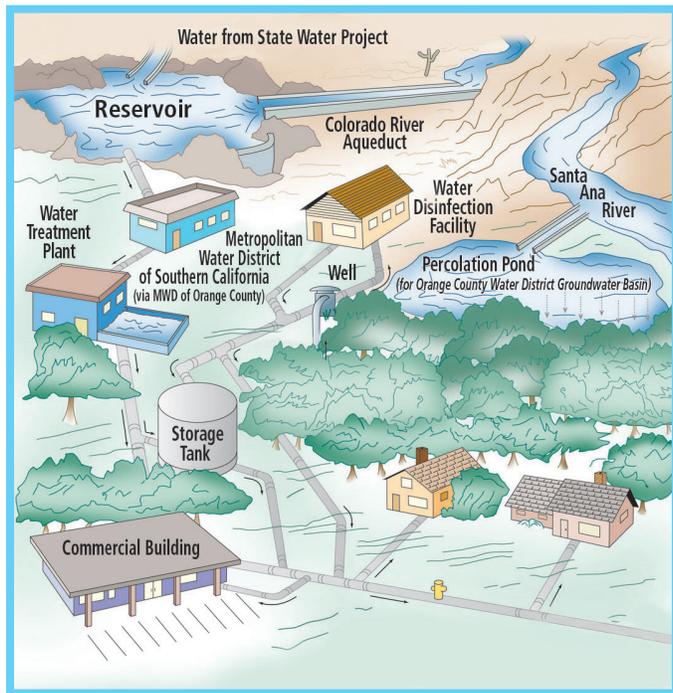
Is it any wonder the State Water Project is the largest single consumer of power in the State of California?

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, and 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 conduit and siphons. All told, the water is lifted four times, a total of more than 1,300 feet.

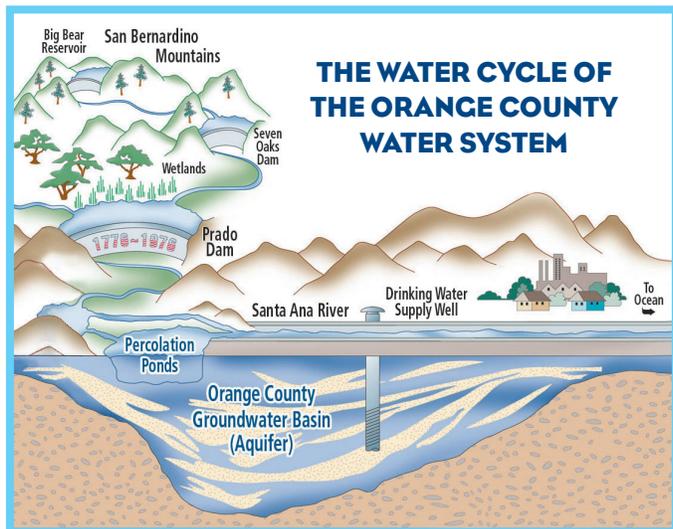
After its journey across the Mojave Desert, the water descends into the Coachella Valley and through the San Geronio Pass. Near Cabazon, the aqueduct flows underground, passing beneath the San Jacinto Mountains and continuing until it reaches its terminus at Lake Mathews. From there, 156 miles of distribution lines, along with eight more tunnels, delivers the 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 the southland, the Municipal Water District of Orange County, in partnership with the Metropolitan Water District of Southern California, pumps the water to individual cities throughout Orange County. The Orange County Water District, which manages the groundwater basin beneath the county, ensures the quality and supply of groundwater throughout its service area. East Orange County Water District sits atop the county aquifer and draws water from this local source, then blends it with the imported surface water.



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 East Orange County Water District vigorously works to ensure the safety of your drinking water and, in conjunction with Metropolitan Water District and OCWD, continuously monitors the water to verify adherence with drinking water regulations.

THE NEED TO CONSERVE WATER REMAINS A HIGH PRIORITY THROUGHOUT CALIFORNIA

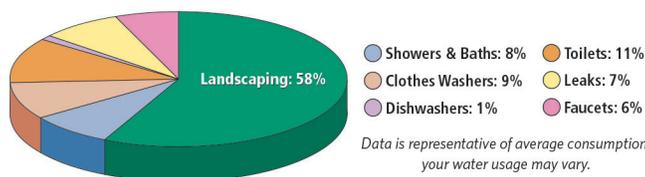
This winter's wet weather, while welcome, has not alleviated the State's water situation. One good season can't overcome the effects of five dry years. Southern California has an arid climate and the need for wise water use must remain a part of everyone's daily lives. Simple water saving acts like the ones listed here can save countless gallons of water every day.

- Soak pots and pans instead of letting water run while you scrub them clean. **This both saves water and makes the job easier.**
- Keep a pitcher of drinking water in the refrigerator. **This can save gallons of water every day and it's always cold!**
- Plug the sink instead of running water to rinse your razor or wet your toothbrush. **This can save upwards of 300 gallons of water a month.**
- Use a broom instead of a hose to clean off sidewalks and driveways. **It takes very little time to sweep and the water savings quickly adds up.**
- Check your sprinkler system for leaks, overspray, and broken sprinkler heads and repair promptly. **This can save countless gallons each time you water.**
- Water plants in the early morning. **It reduces evaporation and ensures deeper watering.**

WHERE DO WE USE WATER THE MOST?

Outdoor watering of lawns and gardens makes up approximately 60% of home water use. By reducing 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.



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.ocwatersmart.com

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

Wings Over the State Water Project:

www.youtube.com/watch?v=8A1v1Rr2neU

Wings Over the Colorado Aqueduct:

www.youtube.com/watch?v=_orUhyA_1q8



East Orange County Water District
185 North McPherson Rd • Orange, California 92869
(714) 538-5815 • www.eocwd.com