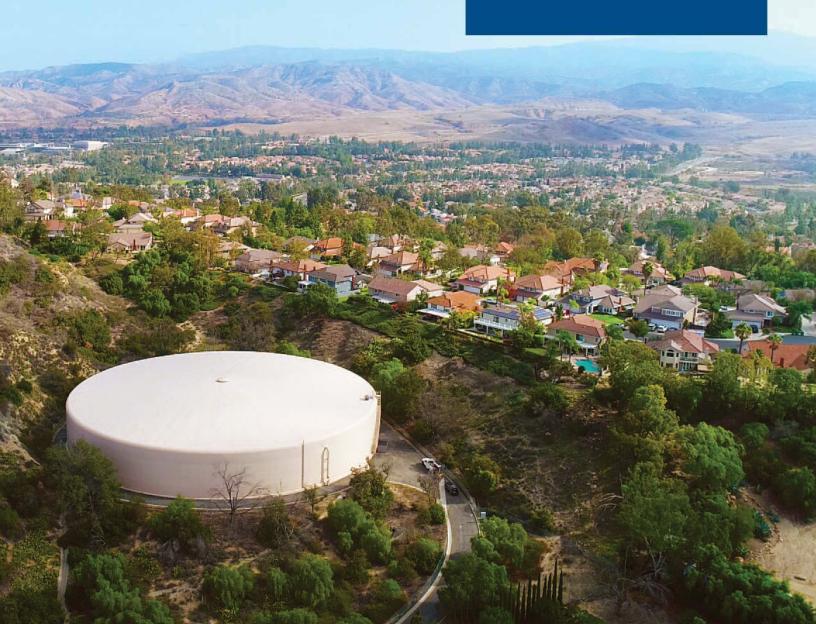


WATER QUALITY REPORT 2021



Your 2021 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 2020 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

Metropolitan Water District of Southern California (MWDSC), which supplies treated imported surface water to



Quality Water is Our Priority

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

Colorado



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

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

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

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

EOCWD, tests 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 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 mas información ó traducción, favor de contactar a East Orange County Water District.

Telefono: (714) 538-5815.

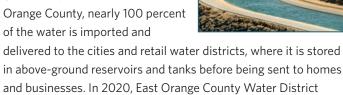


Constant Monitoring Ensures Continued Excellence

Sources of Supply

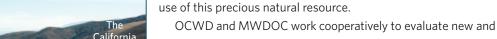
Orange County's water supplies include water imported from Northern California and the Colorado River by the Municipal Water District of Orange County (MWDOC) via MWDSC. In south Orange County, nearly 100 percent of the water is imported and

imported 100% surface water.





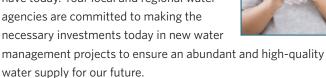
For years, Orange County has enjoyed an abundant, seemingly endless supply of high-quality water. However, as water demand continues to increase statewide, we must be even more conscientious about our water supply and maximize the efficient



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





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.



- To Safeguard Against Issues that May Affect Your Health ----

We Comply with All State & Federal Water Quality Regulations

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

(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.

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.



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

American Dental Association

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

American Water Works Association: www.awwa.org

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 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.

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, or you may visit them on the web at: www.epa.gov/safewater/lead.





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 2020 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.



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 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.

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)

2020 East Orange County Water District Drinking Water Quality Metropolitan Water District of Southern California Treated Surface Water

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

ppb = parts per billion; ppm = parts per million; ppt = parts per trillion; pCi/L = picoCuries per liter; µmho/cm = micromhos per centimeter;
 ND = not detected; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal;
 NL = Notification Level; n/a = not applicable; 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	0.3 NTU	0.04	No	Soil Runoff	
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil Runoff	

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms.

NTU = nephelometric turbidity units

Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT).

A treatment technique is a required process intended to reduce the level of chemicals in drinking water that are difficult and sometimes impossible to measure directly.

2020 East Orange County Water District Distribution System Water Quality

Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	25	21 – 30	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	11	1.8 – 12	No	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	1.66	1.14 – 2.02	No	Disinfectant Added for Treatment
Aesthetic Quality					
Turbidity (NTU)	5*	<0.1	ND - 0.4	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. Color and odor were not detected in 2020.

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 *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	90 th 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 2020, no school submitted a request to be sampled for lead.

EOCWD addresses PFAS to Ensure Full Compliance with Water Quality Standards

EOCWD provides safe, reliable and high-quality drinking water meeting all state and federal standards to customers in our service area.

Because we value the trust you and your family place in us as your water provider, we are addressing PFAS in our groundwater supply system.

PFAS are chemicals prevalent in the environment that were once commonly used in many consumer products including carpets, clothing, furniture fabrics, paper food packaging, water/stain/grease resistant materials and fire-fighting foam used at airfields. In 2019, the California State Water Resources Control Board's Division of Drinking Water (DDW) required testing by water agencies across the state for PFAS compounds in groundwater wells.

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.

PFAS can be found in:



In response to the above detections, EOCWD discontinued use of groundwater wells in May, 2019. During 2020, no groundwater from EOCWD wells was served to customers. Our team also immediately began work on treatment options so that we can again utilize our groundwater supply. We are currently in the design phase of a treatment system which is expected to come online in early-to-mid 2022.

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-pfosdrinking-water

Source Water Assessment

Imported (MWDSC) Water Assessment

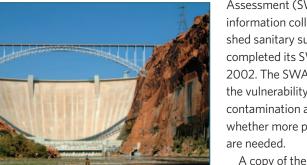
Every five years, MWDSC is required by DDW to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters.

The most recent watershed sanitary surveys for MWDSC's source water supplies from the Colorado River was updated in 2015 and the State Water Project was updated in 2016.

Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and

wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

USEPA also requires MWDSC to complete one Source Water



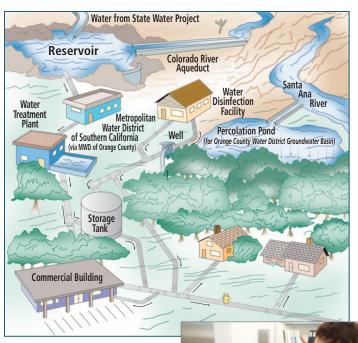
Assessment (SWA) that utilizes information collected in the watershed sanitary survey. MWDSC completed its SWA in December 2002. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

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).

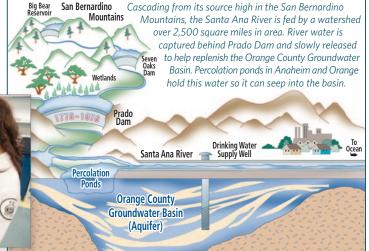
Where Does Our Water Come From?





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.



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

The Need to Conserve Water Remains A High Priority Throughout California

Southern California has an arid climate and wise water use needs to become a part of everyone's daily lives. For as finite as our water resources are, they get smaller every year. 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 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.



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, checkout these two videos:

Wings Over the State Water Project: youtu.be/8A1v1Rr2neU

Wings Over the Colorado Aqueduct: youtu.be/KipMQh5t0f4



East Orange County Water District

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