# 2024 Water Quality Report


***This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State and Federal standards.***

# Your 2024 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 2023 drinking water quality testing and reporting.** The City of Fountain Valley Water Department (City) vigilantly safeguards your water supply and, as in years past, the water delivered to your home or business meets or exceeds the water 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.

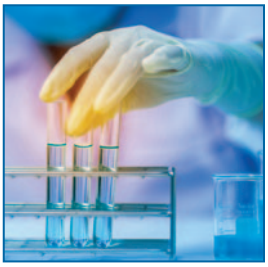
*Whitsett Intake Pumping Plant on the Colorado River.*

Pursuant to the California Safe Drinking Water Act, the City monitors over 100 contaminants in your water supply. This report includes only the contaminants 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 but do not have drinking water standards. Unregulated contaminant monitoring helps USEPA and DDW determine where certain contaminants occur and whether new standards need to be established for those contaminants to protect public health.

Through drinking water quality testing programs carried out by the Orange County Water District (OCWD) for groundwater, the Metropolitan Water District of Southern California (MWDSC) for treated surface water, and the City for the water distribution system, your drinking water is constantly monitored from source to tap for contaminants that are regulated and unregulated.

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

## 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 there and safe to drink.

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 purify and clarify water
- 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
- Serving our community through customer support, education, and outreach

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

**This report contains important information about your drinking water. Translate it, or speak with someone who understands it.**

Este informe contiene información importante sobre su agua para beber. Traducir, o hable con alguien que entiende.

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong cộng đồng quý vị. Hãy nhờ người thông dịch hoặc hỏi những người bạn mà hiểu rõ về vấn đề này nếu cần.

# Constant Monitoring Ensures Continued Excellence

## Sources of Supply

Fountain Valley's water supply is sourced from six City wells and one imported water connection. The City's wells pump groundwater from a natural underground aquifer that is replenished with water from the Santa Ana River, local rainfall, recycled Groundwater Replenishment System (GWRS) water, and imported water. The groundwater basin, which is managed by OCWD, is 350 square miles. It lies beneath north and central Orange County from Irvine to the Los Angeles County border and from Yorba Linda to the Pacific Ocean. A total of 19 cities and retail water districts draw from the basin to provide water to homes and businesses. The imported water connection provides water via the Municipal Water District of Orange County (MWDOC) that is imported by MWDSC from Northern California and the Colorado River. **In 2023, the City only provided groundwater, which is reflected in the charts provided.**

## 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.

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, and water use efficiency programs. 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 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 ground it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Pesticides and herbicides**, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Inorganic contaminants**, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production or mining activities.

In order to ensure that tap water is safe to drink, the 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 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 or visiting epa.gov/safewater.

*To Safeguard Against Issues that May Affect Your Health*

# We Comply with All State & Federal Water Quality Regulations

## Chloramines

Although the City did not import water in 2023, the City can import water as needed from MWDSC which 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 by-products 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 more information, or if you have any questions about chloramines, please call (714) 593-4624.

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

For information or concerns about this report, or your water quality in general, please visit the City's website at FountainValley.gov or contact Kevin Deason, Water Quality Technician, at (714) 593-4624, or send an email to Kevin.Deason@FountainValley.gov.

You may also address your concerns at the regularly scheduled City Council Meetings held at City Hall at 10200 Slater Avenue in Fountain Valley on the first and third Tuesdays of each month at 6:00 p.m. in the City Hall Council Chambers. Please feel free to participate in these meetings. The City firmly believes in the public's right to know as much as possible about the quality of their drinking water and the health of their watershed.

Your input and concerns are very important to us.

For more information about the health effects of the listed contaminants in the following tables, call the USEPA hotline at (800) 426-4791 or visit epa.gov/safewater.

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

## The Groundwater Replenishment System

The Groundwater Replenishment System (GWRS) is a joint project of the Orange County Water District and the Orange County Sanitation District. The GWRS is the world's largest water purification system for indirect potable reuse. Every day, this state-of-the-art water purification project can produce up to 130 million gallons of high-quality water that meets or exceeds all state and federal drinking water standards. This helps decrease Southern California's dependence on imported water from the Sacramento-San Joaquin River Delta and the Colorado River.

While other Southern California counties rely mostly on imported water supplies to meet their water needs, Orange County does not. We have a vast groundwater aquifer basin from which we draw a substantial amount of our water. And the GWRS helps supply about 35 percent of the water that refills the basin each year. The GWRS is leading the way in water recycling, creating a locally-controlled, reliable supply of high-quality water that is drought-resilient. For more information visit ocwd.com/gwrs/.

## 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 meets all standards for lead in the USEPA Lead and Copper Rule, 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 epa.gov/lead.

## Drinking Water Fluoridation

Fluoride occurs naturally in the City's water supplies. In addition to the natural levels, the City's water system adds a small concentration of sodium fluoride to the water to promote dental benefits per a majority vote of the community. Fluoridating the water especially helps to prevent tooth decay in children. Because of the dramatic health benefits of fluoridating drinking water, a 1997 assembly bill of the state of California has mandated all large system water suppliers to begin fluoridating their systems. In 2007 MWDSC began fluoridation of their water supply. The City's water is fluoridated to the DDW optimal range between 0.6 to 1.2 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**
1-800-232-4636 ♦ cdc.gov/fluoridation/

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

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

### 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 (PDWS):** MCLs, MRDLs and Treatment Techniques (TTs) for contaminants that affect health, along with their monitoring and reporting 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 the USEPA.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

### How are Contaminants Measured?

| Units | Units | Equivalence |
|---|---|---|
| ppm = parts per million | mg/L = milligrams per liter | 1 second in 11.5 days |
| ppb = parts per billion | µg/L = micrograms per liter | 1 second in nearly 32 years |
| ppt = parts per trillion | ng/L = nanograms per liter | 1 second in nearly 32,000 years |

## 2023 City of Fountain Valley Drinking Water Quality
## Local Groundwater

| Contaminant | MCL | PHG (MCLG) | Average Amount | Range of Detections | MCL Violation? | Typical Source of Contaminant |
|---|---|---|---|---|---|---|
| **Radiologicals – Tested in 2019 and 2023** | | | | | | |
| Uranium (pCi/L) | 20 | 0.43 | 2.3 | 1.3 – 3.9 | No | Erosion of Natural Deposits |
| **Inorganic Contaminants – Tested in 2023** | | | | | | |
| Aluminum (ppm) | 1 | 0.6 | ND | ND – 0.422 | No | Runoff or Leaching from Natural Deposits |
| Fluoride (ppm) naturally-occurring | 2 | 1 | 0.42 | 0.3 – 0.68 | No | Erosion of Natural Deposits |
| Fluoride (ppm) treatment-related | 2 | 1 | See Footnote 1 | | No | Water Additive for Dental Health |
| Nitrate as N (ppm) | 10 | 10 | 1.3 | 0.8 – 1.8 | No | Agriculture Runoff and Sewage |
| Nitrate and Nitrite as N (ppm) | 10 | 10 | 1.3 | 0.8 – 1.8 | No | Agriculture Runoff and Sewage |
| **Secondary Standards* – Tested in 2023** | | | | | | |
| Aluminum (ppb) | 200* | 600 | ND | ND – 422 | No | Runoff or Leaching from Natural Deposits |
| Chloride (ppm) | 500* | n/a | 35 | 29 – 50 | No | Runoff or Leaching from Natural Deposits |
| Copper (ppb) | 1000* | 300 | ND | ND – 74 | No | Runoff or Leaching from Natural Deposits |
| Iron (ppb) | 300* | n/a | 18.1 | ND – 632 | No | Leaching from Natural Deposits; Industrial Wastes |
| Specific Conductance (µmho/cm) | 1,600* | n/a | 562 | 473 – 692 | No | Substances that Form Ions in Water |
| Sulfate (ppm) | 500* | n/a | 71 | 50 – 104 | No | Runoff or Leaching from Natural Deposits |
| Total Dissolved Solids (ppm) | 1,000* | n/a | 353 | 290 – 444 | No | Runoff or Leaching from Natural Deposits |
| Turbidity (NTU) | 5* | n/a | 0.1 | ND – 0.35 | No | Runoff or Leaching from Natural Deposits |
| **Unregulated Contaminants – Tested in 2023** | | | | | | |
| Alkalinity, total as $CaCO_3$ (ppm) | Not Regulated | n/a | 166 | 140 – 183 | n/a | Runoff or Leaching from Natural Deposits |
| Calcium (ppm) | Not Regulated | n/a | 65 | 51 – 83 | n/a | Runoff or Leaching from Natural Deposits |
| Chromium, Hexavalent (ppb) | Not Regulated | 0.02 | 1.1 | 0.44 – 2.3 | n/a | Erosion of Natural Deposits; Industrial Discharge |
| Hardness, total as $CaCO_3$ (ppm) | Not Regulated | n/a | 213 | 169 – 266 | n/a | Runoff or Leaching from Natural Deposits |
| Hardness, total (grains/gallon) | Not Regulated | n/a | 12 | 9.9 – 16 | n/a | Runoff or Leaching from Natural Deposits |
| Magnesium (ppm) | Not Regulated | n/a | 12 | 10 – 14 | n/a | Runoff or Leaching from Natural Deposits |
| pH (pH units) | Not Regulated | n/a | 8 | 7.8 – 8.1 | n/a | Hydrogen Ion Concentration |
| Potassium (ppm) | Not Regulated | n/a | 2.4 | 1.9 – 3.6 | n/a | Runoff or Leaching from Natural Deposits |
| Sodium (ppm) | Not Regulated | n/a | 42 | 36 – 48 | n/a | Runoff or Leaching from Natural Deposits |

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

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

( 1 ) The Fountain Valley water system treats your water by adding fluoride to the naturally occurring level in order to help prevent dental caries in consumers. The fluoride levels in the treated water are maintained by the City within a control range of 0.6 ppm to 1.2 ppm.

## Unregulated Contaminants Requiring Monitoring at Entry Points to the Distribution System

| Contaminant | Notification Level | PHG | Average Groundwater Amount | Range of Detections | Most Recent Sampling Date |
|---|---|---|---|---|---|
| Bromide (ppm) | n/a | n/a | 0.15 | 0.082 – 0.24 | 2019 |
| Manganese (ppb)** | SMCL = 50 | n/a | 2.7 | ND – 12.1 | 2019 |
| Total Organic Carbon (Unfiltered) (ppm) | n/a | n/a | 0.19 | 0.12 – 0.38 | 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 contaminants requiring monitoring.

# Source Water Assessment

## Groundwater Assessment

An assessment of the drinking water sources for the City was completed in February 2003 and was updated in October 2016 for Wells 6, 9 and 10.

The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: dry cleaners, gas stations, historic gas stations, NPDES/WDR permitted discharges, and sewer collection systems.

A copy of the complete assessment is available at State Water Resources Control Board, Division of Drinking Water, Santa Ana District, 2 MacArthur Place, Suite 150, Santa Ana, CA 92707. You may request that a summary of the assessment be sent to you by contacting Oliver Pacifico at (714) 558-4410.

## 2023 City of Fountain Valley Distribution System Water Quality

| Disinfection Byproducts | MCL (MRDL/MRDLG) | Average Amount | Range of Detections | MCL Violation? | Typical Source of Contaminant |
|---|---|---|---|---|---|
| Total Trihalomethanes (ppb) | 80 | 13 | ND – 22.8 | No | Byproducts of chlorine disinfection |
| Haloacetic Acids (ppb) | 60 | 3 | ND – 5.2 | No | Byproducts of chlorine disinfection |
| Chlorine Residual (ppm) | (4 / 4) | 0.41 | 0.22 – 0.78 | No | Disinfectant added for treatment |
| **Aesthetic Quality** | | | | | |
| Color (color units) | 15* | 1 | 1 | No | Erosion of natural deposits |
| Odor (threshold odor number) | 3* | 1 | 1 | No | Erosion of natural deposits |
| Turbidity (NTU) | 5* | 0.14 | ND – 0.48 | No | Erosion of natural deposits |

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; thirty are tested monthly for color, odor and turbidity.
**MRDL** = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal; **NTU** = nephelometric turbidity units; **ND** = not detected.
*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 |
|---|---|---|---|---|---|---|
| Copper (ppm) | 1.3 | 0.3 | 0.15 | 0 / 33 | No | Corrosion of household plumbing |
| Lead (ppb) | 15 | 0.2 | ND | 0 / 33 | No | Corrosion of household plumbing |

For the sampling event, 33 residences were tested for lead and copper at-the-tap. The most recent set of samples was collected in 2021.
Lead was not detected in any sample. Copper was detected in 24 samples, none of which exceeded the Action Level (AL).
A regulatory AL is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

## Unregulated Contaminants Requiring Monitoring in the Distribution System

| Contaminant | Notification Level | PHG | Average Amount | Range of Detections | Most Recent Sampling Date |
|---|---|---|---|---|---|
| Chlorodibromoacetic Acid (ppb) | n/a | n/a | ND | ND – 0.3 | 2019 |
| Dibromoacetic Acid (ppb) | n/a | n/a | 0.27 | ND – 0.6 | 2019 |


## Want to Learn More About Water?

There's a wealth of information on the internet about drinking water quality and water issues in general, especially water use efficiency and conservation. Some good sites — both local and national — to begin your own research are:

**City of Fountain Valley:** fountainvalley.gov

**Orange County Water District:** ocwd.com

**Metropolitan Water District of Southern California:** mwdh2o.com

**U.S. Environmental Protection Agency:** epa.gov/safewater

**California Department of Water Resources:** water.ca.gov

**The Water Education Foundation:** watereducation.org

**Water Conservation Tips & Rebate Information**: ocwatersmart.com

# Make Conservation a Way of Life

Water is a limited natural resource that needs to be used efficiently in both wet years and dry years. That's why the City of Fountain Valley has permanent water conservation requirements in place to promote the efficient use of water and reduce or eliminate waste. These requirements are in effect at all times and additional requirements may be implemented in response to water shortages. Visit **FountainValley.gov/532/Water-Restrictions** to learn about current restrictions.

- **Water plants only when necessary**, and adjust sprinklers to water your lawn – not the sidewalk or street.
- **Water before 9 a.m. and after 6 p.m.** to reduce evaporation.
- **Limit watering to 15 minutes or less** per station to prevent runoff.

## Tips to Make Every Drop Count

Do you know that the average U.S. household uses approximately 400 gallons of water per day? That's 100 gallons per person per day! Luckily, there are many low-cost and no-cost ways to conserve water. Here are a few ideas to get you started, because even small changes can make a big difference.

- **Take short showers**. A 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- **Turn off the water** while brushing your teeth, washing your hair, and shaving to save up to 500 gallons a month.
- **Use a water-efficient showerhead.** They are inexpensive, easy to install, and can save up to 750 gallons a month.
- **Fix leaking toilets and faucets.** Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.

- **Run your clothes washer and dishwasher only when full** to save up to 1,000 gallons a month.

## Track Your Water Usage

As part of the City's efforts to help customers manage their water usage and save money, the City offers residents and businesses the ability to monitor their water consumption through the Water Usage Customer Portal. Customers can use the portal to view their water consumption data online and sign up to receive email alerts. The portal gives customers access to up-to-date data regarding their hourly, daily, weekly, and monthly water usage so they can identify potential problems, manage their water use, and aid in water conservation efforts.

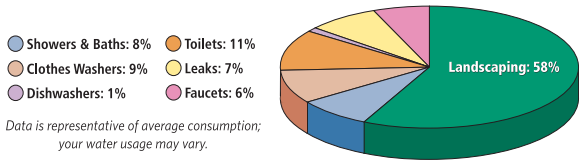
FOUNTAIN VALLEY Water
MAKE EVERY DROP COUNT

Simply visit fountainvalley.gov and click on "Water Usage" to setup your Water Usage Customer Portal account. All you need is your email address, the name on your water bill, and your account number.

## 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.*

*On the Cover:* Sunrise Over Fountain Valley
Photo by Manny Nunez ✦ MannyNunezAerial.com

**City of Fountain Valley Field Services – Water Department**
17300 Mt. Herrmann St. • Fountain Valley, CA 92708
**FountainValley.gov**