SANTA ANA WATER RESOURCES DIVISION

2023 WATER QUALITY REPORT

SANTA ANA'S LEGACY:

Championing Water Quality/ Embracing Challenges

Water Quality | Sustainability | Kids Section | Santa Ana News

A Message From Nabil Saba

Dear Santa Ana Residents,

As the Executive Director of Public Works, I am proud to share how our department is working tirelessly to enhance the quality of life for our residents. Our mission encompasses everything that impacts your daily life, from sidewalks to streetlights, traffic signals, water, sewer, and trash collection.

Over the past year, we have been busier than ever with numerous infrastructure improvements, including street enhancements and the development of two new parks to provide open spaces for families to enjoy outdoor activities.

Our success in maximizing funds from the American Rescue Plan has been remarkable. The Public Works Agency received over $50 million over a two-year period, which we have invested in critical infrastructure. This includes community center renovations and pedestrian and mobility improvements, such as safer crosswalks, sidewalks, speed humps, traffic signals, and neighborhood safety streetlights. Additionally, we have upgraded park restrooms and improved stormwater channels, fencing, and clean city initiatives, including additional bus shelter cleaning and pressure washing of public spaces.

Looking ahead, we have $150 million worth of construction activities underway, covering 55 major capital improvement projects. While these projects may cause temporary inconveniences, such as traffic disruptions and restricted access to parks and community centers, they will significantly enhance the quality of life for our residents for many years to come.

We have started the Bristol Street and Warner Street widening projects. These efforts will not only beautify our city with landscaped medians but also improve traffic flow and reduce congestion.

One of our most exciting projects is the Santa Ana Memorial Park Aquatic Center, which will feature two swimming pools, a recreational pool, a competition pool and water slide, as well as a rose garden and picnic pavilion. Currently under design, construction of the facility is slated to begin this fall with completion expected by early 2026.

Memorial Park Aquatic Center.

Lastly, I am incredibly proud of our water system and how we have adapted to maintain compliance with stringent federal and state standards, particularly in response to PFAS challenges. I am also very proud to announce that Santa Ana has won the gold medal for the third time as the nation's best-tasting, highest-quality tap water. This accolade reflects not only the quality of our water but also the excellence in the management and operation of our water system, thanks to the deep knowledge and expertise of our dedicated staff.

The Water Resources Division, along with the other departments within your Public Works Agency, is dedicated to serving you and enhancing every aspect of life in our vibrant city.

Sincerely,

Nabil Saba

Nabil Saba P.E.
Executive Director
Public Works Agency

> "Santa Ana has won the gold medal for the third time as the nation's best-tasting, highest-quality tap water, reflecting the excellence in our water system's management and the expertise of our dedicated staff."

A Message From Cesar E. Barrera

Santa Ana Water Resources Division's commitment to protecting health and providing safe, award-winning water remains resolute. In 2023, the Division faced multiple challenges and leveraged new opportunities in its efforts to best serve the needs of our city.

With new water quality regulations in place and climate shifts on the horizon, a focus on future planning guided our operations and leadership action.

Using a forward-thinking approach to protecting water quality, the Water Resources Division prioritized PFAS treatment strategies and facilities years ago, beginning to mitigate the new U.S. Environmental Protection Agency's PFAS requirements before they were even announced.

In partnership with Orange County Water District, Santa Ana's Water Resources Division brought our first PFAS treatment facility at the Well 40 site online last year. We are also currently constructing three additional treatment facilities at Wells 31, 38, and 27/28. We have plans for two centralized treatment facilities at Garthe and Walnut stations that will be capable of treating groundwater pumped from multiple wells.

Because of staff's proactive planning, Orange County Water District has invested millions in treatment facilities for our groundwater wells affected by PFAS, funding more than 90 percent of the upcoming facility upgrades. This monetary support protects our customers' wallets and water.

Thanks to our City Council's vision for a more resilient water and financial future, we have secured a bond to support capital project needs. With our "AA" credit rating based on our Division's prudent budgetary management, this new funding source will allow for more water security and enhance operations, while protecting the City's financial outlook.

Seeking new water sources and replacing older wells is vital to securing water reliability. We are currently drilling the Washington Avenue Well and plan to drill an additional well within the next three years. In this report, you will learn about these capital improvement projects and other initiatives, many of which have been funded through our diligent efforts to secure grants and alternative funding.

Santa Ana's dedication to water quality is exemplified by our recent achievement at the prestigious Berkeley Springs International Water Tasting competition. We secured our third gold medal for the nation's highest-quality and best-tasting tap water. Over the years, we have earned a total of eight awards at this competition, a testament to our high standards and the dedication of our certified specialists. I extend my heartfelt appreciation to our highly technical team, whose hard work and commitment ensure the delivery of our award-winning water to residents every day.

Santa Ana's Water Resources Division tests water for more than 120 different constituents and performs thousands of water quality tests annually. Please take the time to read this report, which details these rigorous standards, presents test results, and outlines the measures we are taking to champion water quality while embracing the challenges that lie ahead.

Sincerely,

Cesar E. Barrera P.E.
Deputy Director of Public Works,
Water Resources Manager

> "I extend my heartfelt appreciation to our highly technical team, whose hard work and commitment ensure the delivery of our award-winning water to residents every day."

About This Report

The Consumer Confidence Report (CCR) is an annual water quality report that informs you where your drinking water comes from and what's in it.

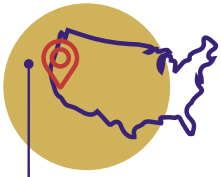
The centerpiece of the CCR is a series of tables that list the results of year-round monitoring for more than 120 constituents. Included in these tables is the quantity of each constituent found in Santa Ana's water supply, how it compares with the allowable state and federal limits, and the constituent's likely origin. Only the constituents that are found in Santa Ana's water are listed in the data tables. Bottled water is not covered in this report. Read this report to learn more about the water provided by Santa Ana and what the City is doing to ensure the highest quality of water is delivered to you year after year.

Need-To-Know Information Such as:

Where your water comes from—such as an aquifer, lake, river, or other source.

A list of regulated contaminants that were detected and their level.

Potential health effects from consuming contaminated water and additional safeguards against water-related illnesses.



Contaminant levels in your drinking water compared to national standards and any violations of health-based standards.

Your tap water met all Federal and State drinking water health standards in 2023. Santa Ana is meticulous at safeguarding its water supplies and, once again, we are proud to report that our system has never violated a maximum contaminant level or any other water quality standard.

About Your Drinking Water

Santa Ana's Sources Of Water Supply

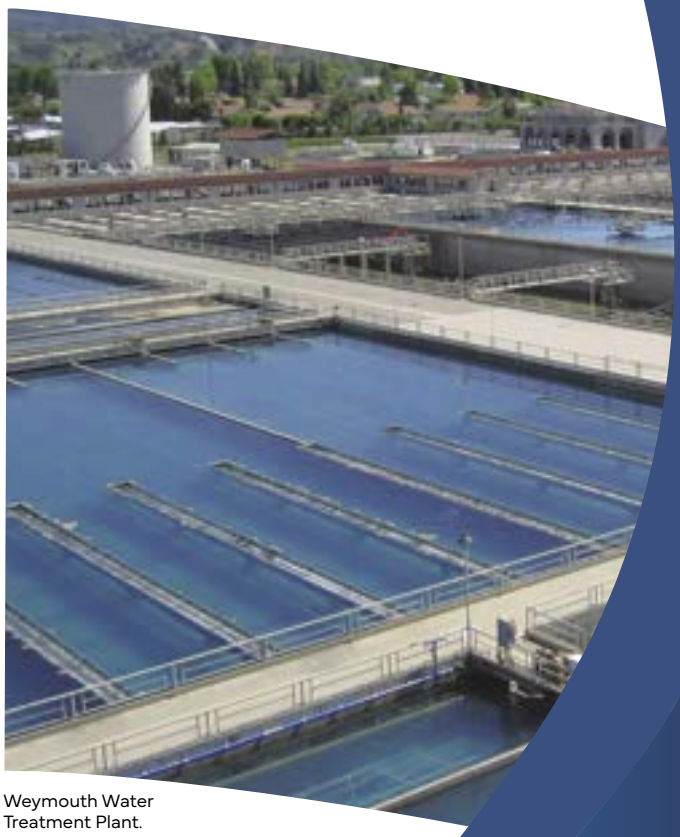
The City of Santa Ana relies on two sources for the 10 billion gallons of water it supplies to residents and businesses each year: approximately 85 percent is groundwater and 15 percent is imported water purchased from Metropolitan Water District of Southern California (MWD). MWD is a regional wholesaler that provides water to 26 member agencies like Santa Ana throughout Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura counties.

Imported Water—MWD brings Colorado River water from Lake Havasu through the 242-mile Colorado River Aqueduct to Lake Mathews near Riverside. It also transports water from the Sacramento and San Joaquin River junction in Northern California via the State Water Project's 444-mile California Aqueduct. The water is then treated at either the Diemer Filtration Plant in Yorba Linda or the Weymouth Water Treatment Plant in the City of La Verne before it is delivered to Santa Ana. There are seven MWD connections located in the city.

Groundwater—Santa Ana sits on the Orange County Groundwater Basin, which contains approximately 500,000 acre-feet (162.9 billion gallons) of usable storage water and covers 270 square miles. The aquifers comprising this underground basin extend over 2,000 feet deep and naturally filter groundwater by forcing it to pass through small pores and between sediments, which helps to remove substances from the water. Santa Ana pumps this groundwater to the surface by 20 city-owned wells.

Most of our customers receive a blending of the two sources: groundwater and imported water.

You can read about the water quality standards for each of these sources in the data tables starting on page 14. We have listed imported water and groundwater in separate tables. An additional table lists the water quality standards for Santa Ana's water distribution system.



Weymouth Water Treatment Plant.

Lake Matthews, a major reservoir in Southern California and where the Colorado River Aquaduct ends.

Regulatory Requirements

Tap water may contain different types of chemicals (organic and inorganic), microscopic organisms (e.g., bacteria, algae, viruses) and radioactive materials (radionuclides), many of which are naturally occurring. Health agencies require monitoring for these constituents or substances, because at certain levels they could make a person sick.

Water Quality Standards

Drinking water standards established by the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) set limits on over 90 substances that may affect consumer health or aesthetic qualities of drinking water. The U.S. EPA rules also set water-testing schedules and methods that water systems must follow. The data tables in this report show the following types of water quality standards:

Primary Standards

Mandatory health-related standards regarding potable water. For each contaminant, a Primary Standard either specifies a treatment technique or sets a Maximum Contaminant Level (MCL).

Secondary Standards

Aesthetic standards (non health-related) that could cause odor, taste, or appearance problems in drinking water.

Unregulated Parameters

Information about contaminants that are monitored, but are not currently regulated by federal and state health agencies.

Water Quality Goals

In addition to mandatory water quality standards, the U.S. EPA and California Environmental Protection Agency (Cal/EPA) have set voluntary water quality goals for some contaminants. The data tables in this report include three types of water quality goals:

Maximum Contaminant Level Goal

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

(MCL)

Public Health Goal

The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the Cal/EPA.

(PHG)

Maximum Residual Disinfectant Level Goal

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.

(MRDLG)

Photo courtesy of Orange County Water District.

Regulatory Requirements *(cont.)*

Maximum Allowed Levels of Constituents

Health agencies have maximum contaminant levels (MCLs) for constituents so that drinking water is safe and looks, tastes and smells good. A few constituents have the letters "TT" (Treatment Technique) in the MCL column because they do not have a numerical MCL. Instead, they have certain treatment requirements that have to be met. One of the constituents, total chlorine residual, has an MRDL (maximum residual disinfection level) instead of an MCL.

The MRDL is the maximum level of a disinfectant added for water treatment that is allowed in water. While disinfectants are necessary to kill harmful microbes, drinking water regulations protect against too much disinfectant being added. Another constituent, turbidity, has a requirement that 95 percent of the measurements taken must be below a certain number. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the efficiency of the filtration system.

Primary vs. Maximum Allowed Levels of Constituents

Constituents that are grouped in the "Primary Standards" section may be unhealthy at certain levels. Constituents that are grouped under the "Secondary Standards" section can affect the appearance, taste and smell of water, but do not affect the safety of the water unless they also have a primary standard. Some constituents (e.g., aluminum) have two different MCLs, one for health-related impacts, and another for non-health related impacts.

Safe Levels of Constituents

With a few exceptions, if the average amount of a constituent found in tap water over the course of a year is no greater than the MCL, then the regulatory requirements are considered to be satisfied. The highest and lowest levels measured over a year are shown in the range. Requirements for safety, appearance, taste and smell are based on the average levels recorded and not the range.

Photo courtesy of Orange County Water District.

Additional Information

Additional information about drinking water safety and standards can be found from these sources.

State Water Resources Control Board Division of Drinking Water

1001 Street, Sacramento, CA 95814 , (916) 449-5577
www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chemicalcontaminants.html

U.S. Environmental Protection Agency Office of Ground Water And Drinking Water

1200 Pennsylvania Avenue, NW, Mail Code 4606M
Washington, DC 20460-0003
www.epa.gov/ground-water-and-drinking-water

Consumer Information

www.epa.gov/ccr

Information On How Drinking Standards Are Established

www.epa.gov/dwstandardsregulations

Drinking Water & Your Health

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 the 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.

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 visiting the U.S. EPA's website at www.epa.gov/ground-water-and-drinking-water or calling the U.S. EPA's Safe Drinking Water Hotline at 800-426-4791.

Contaminants That May Be Present

Water agencies are required to use the following language to discuss the source of contaminants that may reasonably be expected to be found in drinking water, including tap water and bottled water.

Contaminants that may be present in sources of drinking water include:

- **Microbial contaminants,** such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **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.
- **Pesticides and herbicides** that 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 that are byproducts 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 and mining activities.

To ensure that tap water is safe to drink, the U.S. EPA and the State Water Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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. Additional information on bottled water is available on the California Department of Public Health's website at www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/Water.aspx

People with Weakened Immune Systems

Although Santa Ana meets all drinking water standards, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections.

These people should seek advice about drinking water from their health care providers. U.S. EPA and CDC (U.S. Centers for Disease Control and Prevention) guidelines on appropriate means to reduce the risk of infection by Cryptosporidium and other microbial contaminants are available from the U.S. EPA's Safe Drinking Water Hotline at 800-426-4791.

> "Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants."

Protecting Water Quality at the Source

Source water protection is an important issue for all of California. Treatment to remove specific contaminants can be more expensive than measures to protect water at the source, which is why MWD and the City of Santa Ana invest resources to support improved watershed protection programs that in turn safeguard our groundwater.

Imported Water Assessment—

Public water systems are required to submit a comprehensive sanitary survey of their watersheds to the State Water Board's Division of Drinking Water every five years. These sanitary surveys examine possible sources of contamination and recommend actions to protect source waters. The most recent surveys for MWD's source waters are the 2020 update of the Colorado River Watershed Sanitary Survey and the 2021 update of the State Water Project Watershed Sanitary Survey.

You can request a copy of the most recent Watershed Sanitary Surveys by calling MWD at 213-217-6000.

Groundwater Assessment—

The most recent sanitary survey of the drinking water wells for the City of Santa Ana was completed this past year. As in any urban area, Santa Ana's wells are considered most vulnerable to historic agricultural activities, golf courses and application of fertilizers, which are associated with contaminants detected in the water supply. Our wells are also considered most vulnerable to chemical/petroleum pipelines, chemical/petroleum processing, dry cleaners, gas stations, junk/scrap/salvage yards, metal plating/finishing/fabrication, plastics/synthetics producers and sewer collection systems, **although constituents associated with these activities were not detected.** These water sources are tested throughout the year to ensure the supplied water remains safe.

For a copy of the most recent sanitary survey for Santa Ana's distribution system and groundwater, call the Santa Ana Water Resources Division at 714-647-3380.

Protecting Our Groundwater: A Shared Commitment

Here's how you can help protect Santa Ana's drinking water source. Find the right solution to pollution:

POLLUTION

A. Pet waste
B. Soda cans
C. Used motor oil
D. Candy wrappers
E. Fertilizer and pesticides
F. Washing your car in the driveway
G. Litter in your local waterway
H. Hosing off sidewalks
I. Bathing your pet on concrete

SOLUTION

1. Contact your city and ask to volunteer at a cleanup day event.
2. Recycle at an auto parts store or gas station.
3. Never use when rain is forecasted.
4. Pick up and dispose of waste in the trash.
5. Wash on the lawn where water can infiltrate into the soil instead of causing runoff.
6. Recycle them so they can be reused.
7. Use a commercial car wash where the water is recycled or reused.
8. Place them in the trash.
9. Use a broom to sweep up debris.

Answer Key:
1-G, 2-C, 3-E,
4-A, 5-I, 6-B,
7-F, 8-D, 9-H

Additional Information of Interest

Why Fluoride Is Added To Your Water

For more than 70 years, Americans have benefited from drinking fluoridated water, which has led to better dental health. Fluoridated drinking water helps keep teeth strong and reduces cavities by about 25% in both children and adults. Due to these significant health benefits, the State of California mandates that all large water suppliers fluoridate their water systems.

Since October 2007, MWD joined a majority of the nation's public water suppliers in adding fluoride to the treated water it supplies to its member water agencies, including Santa Ana, which receives approximately 15 percent of its water supply from MWD. This plan is approved by the Centers for Disease Control and Prevention (CDC) and the State Water Board.

MWD adjusts the fluoride level in its water to an optimal range of 0.7 to 0.8 ppm for dental health. Santa Ana does not add fluoride to the potable water system—well water naturally contains fluoride levels ranging from 0.18 to 0.42 parts per million (ppm).

For additional information, you may call MWD's Water Quality Information Hotline at 800-354-4420. You can also download MWD's fact sheet at www.bit.ly/MWD_Flouride, visit the State Water Board's fluoridation website at www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml, and the American Dental Association's site at www.bit.ly/ADA_Flouride.

Lead & Copper in Residential Plumbing

If present, elevated levels of lead can pose health risks, especially for pregnant women and young children. Lead in drinking water primarily comes from materials and components used in home plumbing and service lines. While the City of Santa Ana is responsible for providing high quality drinking water, it cannot control the variety of materials residents use in their plumbing components.

If you live in an older house that has copper piping with lead solder, you can minimize the potential for lead exposure. When your water has been sitting for several hours in the pipes, simply flush your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Here are a few more steps you can take to minimize the potential for lead exposure:

- Replace household galvanized plumbing. In homes that have or previously had a lead service pipe, galvanized plumbing can release lead into tap water.
- Install lead-free faucets, valves, and fittings. Until 2014, products labeled "lead-free" could contain up to eight percent lead. Make sure to install fixtures and fittings that contain no more than 0.25 percent lead.
- Flush cold water taps after installing new household pipes or fixtures. New plumbing can release metals after installation. Flush plumbing for five minutes at a high flow rate once a day for at least three days. To help the environment, collect flushed water and use it for watering plants.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure are available from the U.S. EPA Safe Drinking Water Hotline at 800-426-4791 or at www.epa.gov/lead.

Additional Information of Interest

Protecting Your Drinking Water from Cross-Connections

While the City of Santa Ana works diligently to deliver the safest water possible, potential risks can arise once this water enters your property. One significant concern is cross-connections, which can jeopardize the safety of your drinking water.

A cross-connection occurs when a water supply line is connected to equipment or systems containing non-potable (unsafe to drink) substances. Examples include a hose submerged in polluted water, a heating boiler with treatment chemicals, or an underground lawn sprinkler system. These connections can lead to contaminants entering your drinking water if not properly managed.

To protect your water, simple devices like air gaps, hose bibb vacuum breakers, and atmospheric vacuum breakers can be installed. These devices prevent contaminants from entering both your home's drinking water system and the public water distribution system.

Air Gap—An air gap is a vertical separation between the supply line and the overflow rim of a receiving vessel, such as a sink. Air gaps are effective in preventing backflow, ensuring that the contents of a sink, tub, or tank cannot be sucked back into the water line during a loss of water pressure. You can find air gaps on bathroom sinks, dishwashers, and countless other applications.

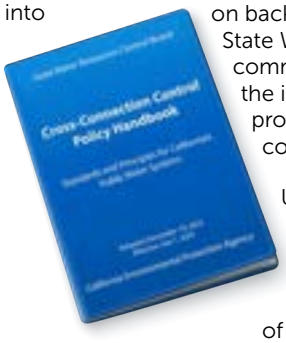
Atmospheric Vacuum Breaker—An atmospheric vacuum breaker (AVB) has an air inlet valve that closes when the device is pressurized, stopping potentially contaminated water from entering your home's water system and the public mains. AVBs are essential for outdoor watering systems, as water pooling around sprinkler heads can be contaminated by chemicals, fertilizers, or animal waste.

Hose Bibb Vacuum Breaker—A hose bibb vacuum breaker that attaches to the spigot and the garden hose can prevent backflow with a spring-loaded check valve. This valve opens and closes based on water pressure, ensuring contaminants do not flow backward into the drinking water system.

New Policy Handbook

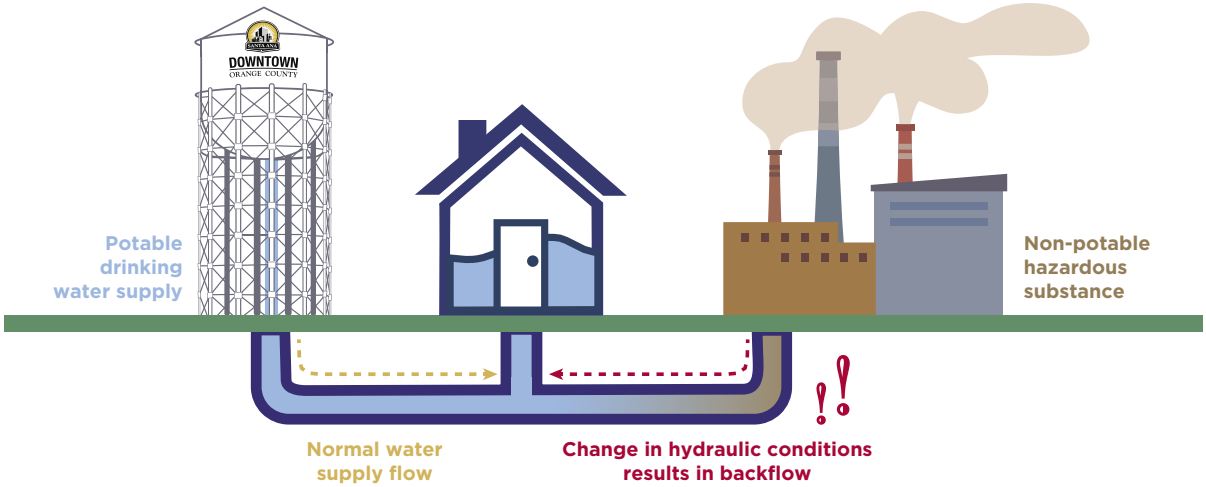
To further protect public health, the State Water Board adopted the Cross-Connection Control Policy Handbook (CCCPH), effective July 1, 2024. This policy enhances the protection of drinking water systems from backflow incidents. Public water systems (PWS) must continue their cross-connection control programs and comply with the CCCPH by July 1, 2025. The CCCPH provides more technical details and explanatory language than previous regulations, ensuring comprehensive protection against backflow.

The CCCPH's primary goal is to protect public health by ensuring drinking water systems are not subject to backflow. By providing educational information on backflow prevention, the State Water Board aims to raise community awareness about the importance of backflow protection and cross-connection control.



Understanding and implementing cross-connection control measures help residents contribute to the safety of Santa Ana's water system. Awareness of potential risks and proactive steps can prevent contaminants from compromising your water quality.

THE CROSS-CONNECTION INCIDENT



How To Read The Data Tables

The data presented on the following tables are from the most recent monitoring completed in compliance with regulations. 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.

You will find three data tables showing a list of chemicals tested in each of the following water sources:

- **Santa Ana Distribution System**
- **Santa Ana Groundwater**
- **Metropolitan Water District of Southern California Treated Surface Water**

For each table, begin with the chemical and read across.

1. The column marked "Chemicals" lists the substances found in the water Santa Ana delivers.
2. MCL is the highest level of substance (contaminant) allowed.
3. MCLG is the goal level for that substance (this may be lower than what is allowed).
4. Average Amount is the average level measured for the substance (less is better).
5. Range of Detections is the highest and lowest amounts measured.
6. A "No" under MCL Violation indicates government requirements were met.
7. Typical Sources in Drinking Water tells you where the constituent usually originates.

Note: Unregulated Constituents are measured, but maximum allowed contaminant (MCL) levels have not been established by the government.

San Luis Reservoir, the nation's largest off-stream reservoir and a key facility for the State Water Project.

Glossary

Terms & Abbreviations

Chemicals
Components or elements found in drinking water.

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. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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 U.S. EPA.

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.

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.

Primary Drinking Water Standard (PDWS)
The MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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 Cal/EPA.

Regulatory Action Level
The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT)
A required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.

Variances and Exemptions
Permissions from the State Water Board to exceed an MCL or not comply with a treatment technique under certain conditions.

Measurements
Santa Ana conducts extensive sampling and testing to ensure your water meets all water quality standards. In 2023, we collected 16,107 samples for contaminants at various sampling points in our water system; all of which were below state and federal maximum allowable levels.

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)

PicoCuries per liter (pCi/L)
A measurement of radioactivity in water.

Micromhos per centimeter (umho/cm)
A measurement for conductivity of water.

Grains per gallon (grains/gal)
A measurement of water hardness often used for sizing household water softeners. One grain per gallon is equal to 17.1 mg/L of hardness.

Nephelometric Turbidity Units (NTU)
A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.

Additional Abbreviations

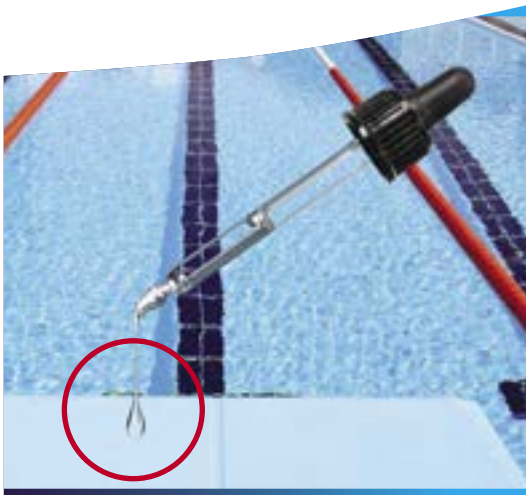
AL = Regulatory Action Level

NA = Not Applicable

ND = Not Detected

NL = Notification Level

SMCL = Secondary MCL



20x

1 part per trillion (ppt) =

A single drop of water in **20** Olympic-sized swimming pools!

2023 Water Quality Tables

2023 CITY OF SANTA ANA DISTRIBUTION SYSTEM'S WATER QUALITY

1	2	4	5	6	7

Chemical	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
DISINFECTANT RESIDUAL AND DISINFECTION BY-PRODUCTS					
Chlorine Residual (ppm)	(4 / 4)	1.02	ND - 2.9	No	Disinfectant Added for Treatment
Total Trihalomethanes (ppb)	80	44	ND - 68	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	18	ND - 30	No	Byproducts of Chlorine Disinfection
AESTHETIC QUALITY					
Color (color units)	15*	1	1	No	Naturally-Occuring Organic Materials
Odor (threshold odor number)	3*	1	1	No	Naturally-Occuring Organic Materials
Turbidity (ntu)	5*	0.15	ND - 1.7	No	Erosion of Natural Deposits

Twelve locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids. Fifty locations are tested monthly for color, odor and turbidity.

MRDL = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal;
ntu = nephelometric turbidity unit; **ND** = not detected.
*Chemical is regulated by a secondary standard to maintain aesthetic qualities (color, odor, and taste).

LEAD AND COPPER ACTION LEVELS AT RESIDENTIAL TAPS

Chemical	Action Level (AL)	Public Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Chemical
Lead (ppb)	15	0.2	ND	0 / 123	No	Internal Corrosion of Household Water Plumbing Systems; Discharges from Industrial Manufacturers; Erosion of Natural Deposits
Copper (ppm)	1.3	0.3	0.16	0 / 123	No	Internal Corrosion of Household Water Plumbing Systems; Discharges from Industrial Manufacturers; Erosion of Natural Deposits

In 2021, 123 residences were tested for lead and copper at-the-tap. Lead was detected in 4 samples, none of which exceeded the AL for lead. Copper was detected in 98 samples, none of which exceeded the AL for copper. A regulatory action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

UNREGULATED CHEMICALS REQUIRING MONITORING IN THE DISTRIBUTION SYSTEM

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Bromochloroacetic acid (ppb)	n/a	n/a	1	ND - 3.9	2020
Bromodichloroacetic acid (ppb)	n/a	n/a	0.76	ND - 2.1	2020
Chlorodibromoacetic acid (ppb)	n/a	n/a	0.52	ND - 1.4	2020
Dibromoacetic acid (ppb)	n/a	n/a	0.73	ND - 2.6	2020
Dichloroacetic acid (ppb)	n/a	MCLG = 0	1.2	ND - 6.1	2020
Monobromoacetic acid (ppb)	n/a	n/a	ND	ND - 0.6	2020
Trichloroacetic acid (ppb)	n/a	MCLG = 20	0.82	ND - 2.5	2020

2023 Water Quality Tables

2023 CITY OF SANTA ANA GROUNDWATER QUALITY

1 Chemical	2 MCL	3 PHG (MCLG)	4 Average Amount	5 Range of Detections	6 MCL Violation?	7 Most Recent Sampling Date	Typical Source of Chemical
Radiologicals							
Uranium (pCi/l)	20	0.43	2.6	ND - 5.8	No	2021	Erosion of Natural Deposits
Inorganic Chemicals							
Arsenic (ppb)	10	0.004	ND	ND - 2.5	No	2023	Erosion of Natural Deposits
Barium (ppm)	1	2	ND	ND - 0.151	No	2023	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.34	0.18 - 0.42	No	2023	Erosion of Natural Deposits
Nitrate (ppm as N)	10	10	1.8	0.56 - 4.6	No	2023	Runoff and Leaching from Fertilizer Use; Leaching from Septic Tanks and Sewage; Erosion of Natural Deposits
Nitrate + Nitrite (ppm as N)	10	10	1.8	0.56 - 4.6	No	2023	Runoff and Leaching from Fertilizer Use; Leaching from Septic Tanks and Sewage; Erosion of Natural Deposits
Perchlorate (ppb)	6	1	ND	ND - 3.1	No	2023	Discharge from Industrial Operations
Secondary Standards*							
Chloride (ppm)	500*	n/a	52	21 - 97	No	2023	Erosion of Natural Deposits
Specific Conductance (umho/cm)	1,600*	n/a	655	460 - 923	No	2023	Substance that forms Ions when in water
Sulfate (ppm)	500*	n/a	86	51 - 121	No	2023	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	416	274 - 548	No	2023	Erosion of Natural Deposits
Turbidity (ntu)	5*	n/a	ND	ND - 0.1	No	2023	Soil Runoff
Unregulated Chemicls							
Alkalinity, total (ppm as CaCO3)	Not Regulated	n/a	166	146 - 192	n/a	2023	Erosion of Natural Deposits
Bicarbonate (ppm as HC03)	Not Regulated	n/a	203	178 - 234	n/a	2023	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	78	42 - 111	n/a	2023	Erosion of Natural Deposits
Hardness, total (grains/gal)	Not Regulated	n/a	15	8.1 - 21	n/a	2023	Erosion of Natural Deposits
Hardness, total (ppm as CaCO3)	Not Regulated	n/a	257	138 - 368	n/a	2023	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	15	8.4 - 22	n/a	2023	Erosion of Natural Deposits
Perfluoro Butane Sulfonic Acid (ppt)	NL = 500	n/a	ND	ND - 6.5	n/a	2023	Industrial Discharge
Perfluoro Butanoic Acid (ppt)	Not Regulated	n/a	ND	ND - 5.8	n/a	2023	Industrial Discharge
Perfluoro Heptanoic Acid (ppt)	Not Regulated	n/a	ND	ND - 4.4	n/a	2023	Industrial Discharge
Perfluoro Hexane Sulfonic Acid (ppt)	NL = 3	n/a	4	ND - 11	n/a	2023	Industrial Discharge
Perfluoro Hexanoic Acid (ppt)	Not Regulated	n/a	ND	ND -8.4	n/a	2023	Industrial Discharge
Perfluoro Octane Sulfonic Acid (ppt)	NL = 6.5	n/a	6.5	ND - 22	n/a	2023	Industrial Discharge
Perfluoro Octanoic Acid (ppt)	NL = 5.1	n/a	4.1	ND -15	n/a	2023	Industrial Discharge
Perfluoro Pentanoic Acid (ppt)	Not Regulated	n/a	ND	ND - 9.9	n/a	2023	Industrial Discharge
pH (pH units)	Not Regulated	n/a	7.9	7.8 - 8	n/a	2023	Acidity, Hydrogen Ions
Potassium (ppm)	Not Regulated	n/a	2.4	1.5 - 3.2	n/a	2023	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	44.2	37.1 - 54.7	n/a	2023	Erosion of Natural Deposits

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

UNREGULATED CHEMICALS REQUIRING MONITORING

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Bromide (ppm)	n/a	n/a	0.13	0.062 - 0.3	2020
Manganese (ppb)**	SMCL=50	n/a	ND	ND - 1	2020
Total Organic Carbon (Unfiltered) (ppm)	n/a	n/a	0.23	0.08 - 0.57	2020

SMCL = Secondary MCL
** Manganese is regulated with a secondary standard of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 20 ppb. Manganese was included as part of the unregulated chemicals requiring monitoring.

2023 Water Quality Tables

2023 METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA TREATED SURFACE WATER QUALITY

1 2 3 4 5 6 7

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
Radiologicals - Tested in 2023						
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND - 5	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	ND - 6	ND - 6	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	1	ND - 3	No	Erosion of Natural Deposits
Inorganic Chemicals - Tested in 2023						
Aluminum (ppm)	1	0.6	0.105	ND - 0.07	No	Treatment Process Residue, Natural Deposits
Bromate (ppb)	10	0.1	ND	ND - 6.3	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm)	2	1	0.7	0.6 - 0.8	No	Water Additive for Dental Health
Nitrate (as Nitrogen) (ppm)	10	10	0.7	0.7	No	Fertilizers, Septic Tanks
Secondary Standards - Tested in 2023						
Aluminum (ppb)	200*	600	105	ND - 70	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	66	42 - 91	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	2	1 - 2	No	Runoff or Leaching from Natural Deposits
Odor (threshold odor number)	3*	n/a	2	2	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	642	424 - 859	No	Substances That Form Ions In Water
Sulfate (ppm)	500*	n/a	122	70 - 175	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	394	253 - 534	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals - Tested in 2023						
Alkalinity, total as CaCO3 (ppm)	Not Regulated	n/a	84	66 - 102	NA	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.13	0.13	NA	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	38	25 - 52	NA	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO3 (ppm)	Not Regulated	n/a	160	99 - 220	NA	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	9.4	5.8 - 13	NA	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	15	9.6 - 21	NA	Runoff or Leaching from Natural Deposits
pH (units)	Not Regulated	n/a	8.5	8.5	NA	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	3.4	2.6 - 4.3	NA	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	69	47 - 91	NA	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.4	2.1 - 3	NA	Various Natural and Man-made Sources
Turbidity - Combined Filter Effluent Metropolitan Water District Diemer Filtration Plant			Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Chemical
1) Highest single turbidity measurement (NTU)			0.3	0.08	No	Soil Runoff
2) Percentage of samples less than or equal to 0.3 NTU			95%	100%	No	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in MWD'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. **NTU** = nephelometric turbidity units.

UNREGULATED CONSTITUENTS REQUIRING MONITORING

Consituent	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Lithium (ppb)	n/a	n/a	15	ND - 36	2023

Notes

Trihalomethanes and Haloacetic Acids

Twelve locations in the distribution system are tested quarterly for total trihalomethanes (TTHMs) and haloacetic acids (HAAS). Fifty locations are tested monthly for color, odor and turbidity.

Lead and Copper

A regulatory action level (AL) is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

In 2021, 123 residences were tested for lead and copper at the tap. Lead was detected in 4 of the samples, none of which exceeded the AL for lead. Copper was detected in 98 samples, none of which exceeded the AL for copper.

DDW Ordered & Voluntary Samplings

In 2023, we received Monitoring Orders from the Division of Drinking Water (DDW) to sample groundwater wells for PFAS. Below are the details of those wells:

DDW Monitoring Orders:

Well 35 (sampled on 2/22/2023)
- PFHxS: 2.2 ng/L (below Notification Level)
- PFOS: 2.4 ng/L (below Notification Level)

Well 34 (sampled on 1/11/2023)
- PFAS: No Detection

Well 37 (sampled on 1/11/2023)
- PFAS: No Detection

Well 21 (sampled on 9/26/2023)
- PFHxS: 3.3 ng/L (below Notification Level, but must be monitored)

Additionally, we *voluntarily* sampled all other wells not covered by the DDW Monitoring Order. Below are the details of the wells that were voluntarily sampled in 2023:

Voluntarily Sampled:

Well 18 (sampled on 10/24/2023, moved to STANDBY in 2023)
- PFOA: 12.2 ng/L (above Response Level)
- PFOS: 15.2 ng/L (above Notification Level)
- PFHxS: 9.7 ng/L (above Notification Level)

Well 20 (sampled on 9/26/2023)
- PFAS: No Detection

Well 24 (sampled on 10/24/2023, moved to STANDBY in 2023)
- PFOA: 15.2 ng/L (above Response Level)
- PFOS: 21.5 ng/L (above Notification Level)
- PFHxS: 11 ng/L (above Notification Level)

Well 29 (sampled on 10/10/2023, Monitoring Order received 2/2/2024 requiring quarterly monitoring sampling)
- PFOA: 5.1 ng/L (at Notification Level)
- PFOS: 8 ng/L (above Notification Level)
- PFHxS: 4.9 ng/L (above Notification Level)

Well 30 (sampled on 9/26/2023)
- PFAS: No Detection

Well 33 (sampled on 10/10/2023, Monitoring Order received 2/2/2024 requiring quarterly monitoring sampling)
- PFOA: 5.8 ng/L (above Notification Level)
- PFOS: 7.9 ng/L (above Notification Level)
- PFHxS: 5.6 ng/L (above Notification Level)

Well 36 (sampled on 10/24/2023, Monitoring Order received 2/2/2024 requiring quarterly monitoring sampling)
- PFOA: 7.9 ng/L (above Notification Level)
- PFOS: 17.2 ng/L (above Notification Level)
- PFHxS: 9 ng/L (above Notification Level)

Well 39 (sampled on 2/6/2024, Monitoring Order received 2/2/2024 requiring quarterly monitoring sampling)
- PFOA: 5.1 ng/L (at Notification Level)
- PFOS: 9.3 ng/L (above Notification Level)
- PFHxS: 5.2 ng/L (above Notification Level)

Well 41 (sampled on 10/10/2023, moved to STANDBY in 2023)
- PFOA: 10.6 ng/L (above Response Level)
- PFOS: 15.3 ng/L (above Notification Level)
- PFHxS: 9.6 ng/L (above Notification Level

Combined Filter Effluent Turbidity (NTU)

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 MWD'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.

Chloramines and Chlorine

The City is required* to disinfect your water to prevent waterborne pathogens by using chlorine or chloramines (which are compounds of chlorine and ammonia). Both effectively kill bacteria and other microorganisms that can cause disease. The water we import from MWD is disinfected using chloramines, a type of disinfectant that is very stable and reduces the formation of disinfection by-products in water. The City of Santa Ana disinfects locally produced water with chlorine, which is injected into our water system with precise dosing measures. We carefully monitor the amount of chlorine disinfectant to protect the safety of your water.

Chloraminated and chlorinated water is safe for people and animals to drink, and for all other general uses. Three special user groups, including kidney dialysis patients, aquarium owners, and businesses or industries that use water in their treatment process, must remove these disinfectants from the water prior to use. Hospitals or dialysis centers should be aware of chloramine or chlorine in the water and should install proper equipment, such as dual carbon adsorption units. such as dual carbon adsorption units, to remove these disinfectants.

Aquarium owners should use readily available products to remove or neutralize chloramine and chlorine. Businesses and industries that use water in any manufacturing process or for food or beverage preparation should contact their water treatment equipment supplier regarding special equipment needs.

**As mandated by the U.S. EPA and State Water Board.*

Santa Ana's Water Resources Division: A Legacy of Innovation and Leadership

Santa Ana's journey to establishing a robust water supply began in the late 19th century when the city was a small town dependent on individual shallow wells. It wasn't until W.H. Spurgeon drilled an artesian well in 1873, reaching a depth of 340 feet, that the town gained access to a plentiful supply of groundwater. This well, along with its large, elevated tank, was located at the site now occupied by the Spurgeon building.

A local artisan well, circa 1890.

Photo courtesy of Santa Ana Public Library.

As the demand for water increased, a windmill and a 3,000-gallon tank were installed to pump water to the upper stories of buildings. By 1883, the town's water system had expanded to support the growing population, with a storage capacity of 20,000 gallons from two deep artesian wells. Despite this capacity, the system quickly proved inadequate.

Following the city's incorporation in 1886, the first bond issue of $60,000 was approved in 1889 to establish a public water system. This evolved into what is now known as Santa Ana's Water Resources Division. Land was purchased at the corner of Flower and West Fifth streets where, under the supervision of City Engineer Solomon Henderson Finley, an artesian well, a pumping plant, a concrete reservoir and cast iron mains were installed to distribute water to the business and residential areas nearby. This early system laid the groundwork for the comprehensive water infrastructure Santa Ana would develop over the next century.

Growth, Expansion and Leadership

As Santa Ana grew, so did its water infrastructure. The city continually extended pipelines, installed new pumps, and drilled additional wells. Subsequent bond issues in 1898 and 1904 funded further enhancements, including a comprehensive sewer system and general enlargement of the water plant. One notable enhancement was the 153-foot-tall Santa Ana Water Tower, built in 1928 to hold 1 million gallons of water, enough to supply the city's 30,000 residents at the time. While its role in the city's water system today is less prominent, the water tower holds an important place as a symbol of the city and its rich historical heritage. By 1936, the investment in Santa Ana's water system had surged from $60,000 to $1,243,000, reflecting the city's commitment to a reliable water supply for its residents.

Recognizing the limitations of the underground water basin, Santa Ana joined the MWD, a coalition of 13 cities formed in 1928 to transport water from the Colorado River. This collaboration ensured a supplemental water supply to meet the city's growing needs.

In 1953, Santa Ana further strengthened its water management efforts by joining the Orange County Water District (OCWD). This partnership allowed Santa Ana, along with Fullerton and Anaheim, to actively participate in managing the Orange County Groundwater Basin, conserving groundwater supplies and protecting water rights to the Santa Ana River.

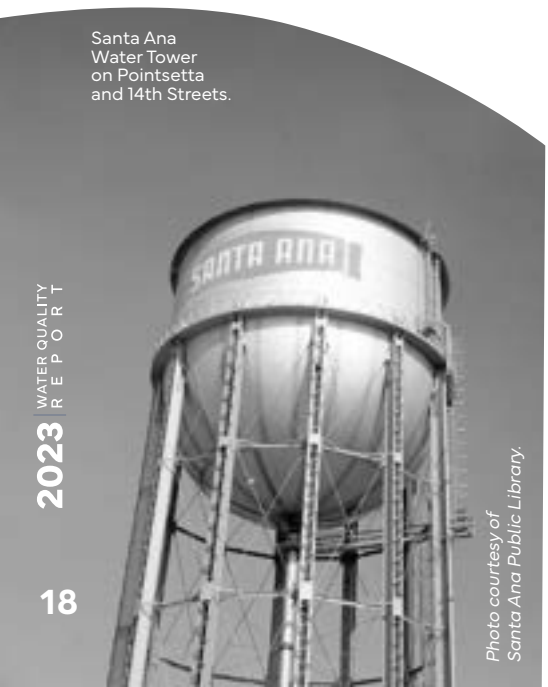
.

A Robust Water Infrastructure

Today, Santa Ana's Water Resources Division manages a comprehensive water infrastructure that serves the city's 27.2 square mile service area and 345,000 residents on a daily basis. This infrastructure comprises 20 groundwater wells, 7 import water connections, 7 pump stations, 10 reservoirs, and 480 miles of transmission and distribution pipelines.

Santa Ana's partnerships with the OCWD and MWD continue to be instrumental in maintaining a reliable and high-quality water supply. The city's extensive infrastructure and proactive leadership underscore its long-standing commitment to innovation and adaptability. The Water Resources Division stands ready to meet the evolving water needs of our vibrant community, ensuring sustainability and resilience for future generations.

Formation of Metropolitan Water District (MWD), circa 1928. *Photo courtesy of MWD.*



Santa Ana Water Tower on Pointsetta and 14th Streets.

Photo courtesy of Santa Ana Public Library.

Sources:

1. *Armor, Samuel. History of Orange County, California. Illustrated, Historic Record Company, Los Angeles, 1921. www.cagenweb.org/books/history%20of%20orange%20county%201921.pdf.*
2. *Finley, S.H. "Col. Finley Writes Story of Early Santa Ana Water." Santa Ana Journal, 28 May 1936. Orange County Historical Society. www.orangecountyhistory.org/wp/?page_id=207.*

Championing Water Quality

The City of Santa Ana's Water Resources Division is an award-winning utility where excellence and quality flow through every drop. Case in point: our tap water has once again earned the title of the nation's best-tasting and highest-quality tap water!

Santa Ana has struck gold in the municipal water category not once, not twice, but three times at the renowned Berkeley Springs International Water Tasting competition. This event gathers municipalities, private water agencies, and bottled water companies from around the world to vie for the coveted "best tasting" title.

We faced off against waters sourced from 16 states and 18 foreign countries and yet emerged as the winner. It's a significant achievement, demonstrating that Santa Ana's tap water is a cut above the rest. This triple gold win is a testament to the dedication and hard work of our Water Resources Division.

"Winning the gold in our category three times is truly phenomenal," says Cesar E. Barrera, Deputy Public Works Director|Water Resources Manager, City of Santa Ana. "Our track record of earning a total of eight awards at this prestigious competition over the years speaks volumes about the high standards we uphold for our tap water and the unwavering dedication of our certified specialists who are committed to serving our customers."

Year after year, our certified specialists ensure that your tap water meets and exceeds the strictest federal and state drinking water regulations. With over 120 different constituents tested and thousands of quality tests performed annually, you can trust that every drop from your tap is of the highest quality.

But what makes Santa Ana's tap water so special? It all starts with the vast groundwater basin beneath northern and central Orange County. The natural filtration system of the basin's deep aquifers purifies the water as it flows through porous layers of soil, removing sediment and impurities. The fresh groundwater is then pumped to the surface through our city-owned wells, and tested and treated before it reaches your tap.

The City of Santa Ana works closely with OCWD, which manages the groundwater basin to ensure water is not only of high quality but a reliable and plentiful source.

In this report, you'll discover more about our award-winning tap water, including its sources, composition, the rigorous measures we employ to maintain its quality, and details about monitoring and testing.

We're incredibly proud of this achievement, and it's all thanks to the dedication of our Water Resources team who work tirelessly to serve our community. Please join us in celebrating Santa Ana's triple gold victory for drinking water excellence!

It is not a simple task to maintain a healthy, reliable, safe drinking water supply. It requires a large investment in infrastructure and resources as well as people.

Gold Medals:
2024, 2018, 2014

Silver Medals:
2021, 2012

Bronze Medal:
2011

Fourth-place:
2020, 2016

Embracing Challenges

The City of Santa Ana is dedicated to staying ahead of emerging water challenges to ensure the health, safety, and sustainability of our community. By proactively addressing challenges like PFAS contamination in water, lead and copper regulation requirements, and the impacts of climate change, Santa Ana demonstrates its commitment to providing high-quality water and sustainable solutions. Our partnerships with OCWD and MWD exemplify our collaborative approach to overcoming these challenges and ensuring safe, reliable water supplies for our future.

Addressing PFAS Challenges

Per- and polyfluoroalkyl substances (PFAS) are a large group of man-made chemicals used since the 1940s in common household and commercial products. PFAS chemicals are often used to keep food from sticking to cookware but are also used to make clothes, carpets, and furniture resistant to water and stains. Firefighting foams used to extinguish fuel and oil fires have historically also contained PFAS. PFAS substances are not exclusive to Orange County or even California. States across the country are tackling these contaminants found in consumer products and groundwater, which pose significant health and environmental risks. The City of Santa Ana has been working closely with OCWD to address PFAS contamination in water and safeguard water quality.

Federal Regulations—Recent federal regulations by the U.S. EPA have set standards for various PFAS chemicals. The EPA's new regulations, finalized in April 2024, mandate public water systems to monitor PFAS levels by 2027 and implement remedial actions by 2029 if levels exceed the Maximum Contaminant Levels (MCLs). The EPA set the MCL for PFOA and PFOS at 4.0 parts per trillion (ppt) and other compounds at 10 ppt.

State Regulations—While California's State Water Board has already made significant efforts to mitigate PFAS contamination in drinking water, it continues to pursue more stringent PFAS regulation. California's Office of Environmental Health Hazard Assessment, or OEHHA, adopted public health goals for PFOA and PFOS in drinking water at 0.007 ppt and 1.0 ppt, respectively. While not regulatory, these goals guide the development of mandatory drinking water standards by the Division of Drinking Water (DDW).

These new regulations underscore a commitment to water safety through advanced detection methods. Parts per trillion is an extremely minute measurement, detectable only recently with advanced lab equipment. To put it in perspective, one part per trillion is like one drop of water in 20 Olympic-size pools or one second in 30,000 years.

Monitoring and Testing—In partnership with OCWD, we remain at the forefront of monitoring, testing, and detecting PFAS compounds in our groundwater. Our groundwater is continually monitored and tested at OCWD's state-certified water quality laboratory, the first of its kind in California. This laboratory has invested over $1 million in cutting-edge equipment, enabling their ability to precisely analyze for PFAS in drinking water.

Treatment Facilities—Our partnership with OCWD also provides critical resources to address the challenges posed by PFAS. OCWD has committed to funding the design and construction of PFAS treatment facilities and providing support to PFAS treatment facility operations and maintenance costs. Last year, the new Well 40 treatment facility was brought online and has been treating and delivering up to 2.5 million gallons of water per day.

Well 31 Rendering.

Three additional treatment facilities at Wells 31, 38, and 27/28 are currently in construction. and will be capable of treating up to 15 million gallons of water per day. The design of a centralized PFAS treatment facility located at John Garthe Reservoir is nearing completion, with construction expected to begin next year. This centralized PFAS treatment facility is the first of its kind in the city and will be capable of treating up to 18 million gallons of water per day supplied from five local groundwater wells.

Planning has begun for a second centralized PFAS treatment facility at Walnut Reservoir, along with two additional well site-specific treatment facilities.

Throughout Orange County, OCWD has committed an estimated $550 million for PFAS remediation projects, with a long-term investment plan of approximately $1.8 billion over the next 30 years.

Santa Ana's close collaboration with OCWD ensures that our drinking water continues to meet all state and federal standards. Through advanced lab methods, rigorous monitoring, and construction of new treatment facilities, we remain dedicated to providing safe, high-quality water for our community.

Philip L. Anthony Water Quality Laboratory.

Photo courtesy of OCWD.

Ensuring Safe Lead and Copper Levels

In November 2023, the U.S. EPA unveiled proposed revisions to the National Primary Drinking Water Regulation for lead and copper, known as the Lead and Copper Rule Improvements (LCRI). These proposed changes build upon the 2021 Lead and Copper Rule Revisions (LCRR) and the original 1991 Lead and Copper Rule (LCR). The proposal also includes improvements in corrosion control treatment, public education, and sampling in schools and childcare facilities.

Key Changes—The proposal includes improvements in corrosion control treatment, public education, and sampling in schools and childcare facilities. Unlike previous efforts focused solely on corrosion control, the LCRI prioritizes mandatory lead service line replacement. This means that public water systems, including the City of Santa Ana, must conduct comprehensive inventories of service lines and develop plans to replace all lead service lines within 10 years, regardless of lead levels.

Santa Ana's Compliance Efforts—For Santa Ana residents, it's essential to know that the city's water mains are lead-free, and there are no known lead service lines connecting the mains to meters, which are owned and managed by the City. Rigorous testing consistently demonstrates that our water meets or exceeds all state and federal quality standards, including lead testing.

The City of Santa Ana is diligently working on both city-owned service line and customer-owned service line inventory. This involves going through water service records and surveying customer-owned water service lines throughout the city, identifying customer-owned areas with lead, and helping customers develop a comprehensive replacement plan. This water service line inventory will be submitted by the LCRR deadline of October 16, 2024.

For better understanding, the diagram above illustrates a typical single family residential service line connection.

Climate Change

In collaboration with MWD, the City of Santa Ana is working with other agencies to ensure our region has reliable water for years to come, despite the challenges posed by climate change. Together, we're at the table developing our region's long-term water plans through the new Climate Adaptation Master Plan, which will help the region adapt its water delivery and storage to changing climate conditions.

Recent extreme weather, including severe droughts and record-setting wet seasons, shows just how urgent this work is. MWD's comprehensive approach includes clear decision-making processes, performance targets for our infrastructure and water management, investment priorities, and strategic financing options. This gives us a solid plan for future investments and sustainable water management.

The partnership between Santa Ana and MWD highlights a proactive and innovative response to the realities of climate change, ensuring reliable water supplies for our community. We're committed to taking care of our water resources, so you can count on having the water you need, now and in the future.

As we tackle the complexities of emerging contaminants and modern water management, Santa Ana remains committed to ensuring the health, safety, and sustainability of our water supplies. By addressing challenges such as PFAS, lead and copper, and climate change, we are dedicated to providing high-quality water and sustainable solutions for generations to come.


Well 29 Rendering

Investing in Santa Ana's Future

Our capital improvement projects last year focused on the rehabilitation of two wells, involving the installation of new facilities, equipment, and state-of-the-art control systems. We also began construction of the Washington Well, marking the first new well in Santa Ana in 20 years. These efforts, alongside our ongoing Advanced Metering Infrastructure (AMI) project and extensive water and sewer main improvements, highlight our commitment to enhancing the city's infrastructure and ensuring reliable water services for our residents.

Advanced Metering Infrastructure (AMI) Update

The City of Santa Ana is making significant strides in our $30 million Advanced Metering Infrastructure (AMI) initiative. We are pleased to announce that we have completed approximately 40 percent of the smart meter installations citywide, and we remain on schedule to finish the project by December 2025.

Current Progress and Milestones:

- **Installation Progress—**To date, nearly half of the city's water meters have been upgraded to smart meters. This substantial progress demonstrates our commitment to enhancing water management and conservation efforts.
- **Customer Benefits—**Many residents are already benefiting from the new system. Smart meters are providing real-time water usage data, allowing customers to track their consumption more accurately and identify potential leaks early.
- **System Improvements—**The communications infrastructure, including the four new antenna towers constructed during the initial phases, is fully operational and supporting the smooth rollout of the remaining installations.

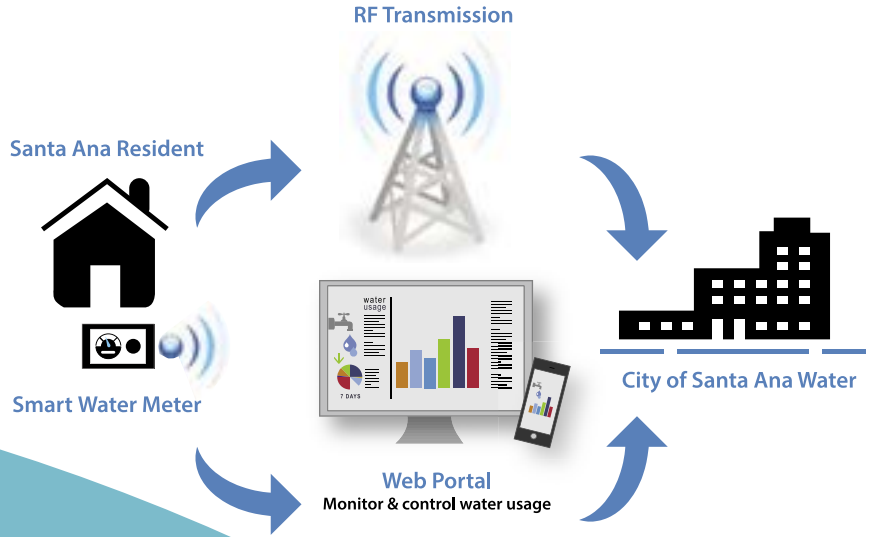
Our AMI initiative is a major investment in our community's future, supporting sustainable water use. It provides residents with valuable tools to manage their water consumption and other benefits, including:

Water Conservation—Smart meters empower customers to set conservation goals and manage budgets effectively. By accessing water data online, customers can closely monitor their water consumption so they can make more informed decisions, stay within rate tiers, and save money.

Detecting Leaks—Smart meters provide round-the-clock readings and alert customers to anomalies that may indicate a leak.

Improved Service—AMI meters enable customers to receive more efficient and prompt service. With 24/7 access to water usage data, residents can proactively address concerns with customer service and identify issues like leaks, without waiting for a bi-monthly bill.

Smart Metering: AMI



Well Rehabilitations

Well 29—Well 29, part of our Walnut Pump Station network serving the downtown area, is undergoing a comprehensive renovation. Scheduled for completion in the first quarter of 2025, the well will be equipped with a new pump, motor, and well pipe header components.

This project includes the construction of a new building to enclose the well pump and house its mechanical and electrical systems, instrumentation, and controls. Additionally, the project will feature landscaping, walls, and an irrigation system to improve the surrounding grounds.

With an investment of over $8 million, this well rehabilitation will contribute to a long-lasting facility and improve the reliability of our water system.

Well 32—Well 32, which has been offline for nearly a decade, is undergoing significant upgrades. The $16-million project includes multiple enhancements to improve its functionality and reliability, including a new above-ground well building with an electrical room, a new well pump, motor, and corresponding mechanical, electrical, and system controls.

A water conveyance pipeline, approximately 3,250 linear feet long, and the construction of the water disinfection treatment station will connect Well 32 to the Garthe Reservoir site to allow for blending of water supplies.

Once operational, the rehabilitated Well 32 is expected to produce up to 2,500 gallons per minute. The project is scheduled for completion in 2025.


Washington Well.

Sustainability

New Water Source

Washington Well—For the first time in 20 years, we are nearing the completion of drilling a new well on E. Washington Avenue. This project is an important step in the City of Santa Ana's efforts to decrease dependence on imported water and optimize our capacity to deliver local water supplies to the community.

Scheduled to start in 2025, the next phase includes constructing a new well building and disinfection facility. This phase also involves equipping the new well with electrical, mechanical, and system instrumentation and controls. Additionally, sound walls will be installed to minimize noise impact on the surrounding area. This well is an example of how the City of Santa Ana is actively pursuing new water sources to further enhance our water supply infrastructure and service reliability.

Water and Sewer Main Improvements

As part of our capital improvement plan, we completed the construction of over 4,500 linear feet of water mains and over 10,000 linear feet of sewer mains last year, with an infrastructure investment exceeding $20 million. These projects are integral to our long-term water and sewer master planning efforts, aimed at enhancing our city's infrastructure. Here's a look at some of these projects:

Neighborhood Water and Sewer Improvements—This comprehensive project, nearing completion, connects water and sewer services to the neighborhood located northeast of the intersection of 17th Street and Tustin Avenue. The improvements included:

- **New water main and customer connections:** Construction of approximately 2,250 linear feet of new water main with new water service connections and meters.
- **New sewer main and customer connections:** Construction of approximately 660 linear feet of new water main and installation of new sewer laterals and manholes.

E. Avalon Ave. Water Main Improvements—The water main on E. Avalon Avenue, between Santiago Street and Lincoln Avenue, was deteriorating at an unexpectedly accelerated rate. To mitigate potential impacts and address immediate issues, the City replaced the entire pipeline and made additional improvements and repairs in the neighborhood, with a total investment of $1.5 million.

Project Details

- **Water Main Replacement—**Installation of 1,400 linear feet of new water main and the addition of hydrants.
- **Sewer System Repairs—**Concurrently addressed root intrusion in the sewer system, replacing compromised sewer lines to avoid future disruptions.

Other Key Projects

- Saint Gertrude and Water Main Improvements
- Ritchey Street Water Main Improvements
- South Main Water and Sewer Main Improvements
- Warner Avenue Water Main Improvements
- Willard Neighborhood Water and Sewer Main Improvements

Project Funding for Infrastructure Improvements

Capital Improvement Program funding is a critical component of our infrastructure upgrades. The City of Santa Ana Public Works Agency (PWA) and Water Resources Division have been actively working and applying for grants and low-interest bearing loans to improve our infrastructure. For example, a significant portion of the total cost for the Washington Avenue Well project is being funded by a federal grant.

In the past year, we successfully procured over $25 million in funding. These funds have been instrumental in advancing our projects, enabling us to make significant upgrades and improvements without placing additional financial burden on our residents. We remain committed to seeking additional funding opportunities to support ongoing and future infrastructure projects.

Future Projects

Looking ahead, we have several projects on the horizon aimed at further improving Santa Ana's infrastructure. Upcoming initiatives include:

- **Citywide Sewer Main Improvements—**Targeting localized areas to improve sewer system reliability, operations and maintenance.
- **Citywide Water Main Improvements—**Prioritizing aging pipeline in the most critical condition, often in conjunction with street improvements to minimize disruptions to residents and commuters while reducing overall construction costs.
- **Hazard Avenue and Memorial Neighborhood Sewer Main Improvements—**Upgrading and replacing aging sewer mains to ensure efficient wastewater conveyance operations and management.
- **Bristol Street Water Main Improvements—**Replacing aging water mains, services and water related appurtenances for the water pipeline system.
- **Citywide Water Meter Vault Replacement Program—**Upgrading water meter vaults across the city to improve access and replace aging infrastructure appurtenances.
- **Drilling Well 43—**Drilling a new well near Walnut Reservoir.

These projects represent our ongoing commitment to investing in the city's infrastructure, ensuring that we can meet the current and future needs of our residents.

Kids Section

Poster Contest Reception.

Celebrating H2O Heroes: Santa Ana's 9th Annual Youth Water Poster Contest

Every year, here at the Santa Ana Water Resources Division, we are thrilled to host the Youth Water Poster Contest. It's an event we look forward to because it gives us a chance to spread the word about the importance of water conservation and to see the amazing creativity of kids in our community.

This year's theme, "H2O Heroes: We Save Water," inspired young artists from 43 schools across Santa Ana to showcase their talents and share their visions for a sustainable future. With an overwhelming response, we received over 460 entries, each representing a unique perspective on the importance of preserving our precious water resources.

After careful consideration, our esteemed panel of judges—Tram Le, Mishaun Watkins, and Brenda Vega—selected twelve winners from four different age groups. These gifted artists were honored at our Awards Ceremony and Reception on May 22, 2024. Mayor Amezcua, Mayor Pro Tem Phan, and the entire City Council joined us to celebrate their achievements, presenting each winner with certificates and medals.

But the celebration didn't stop there! Following the ceremony, the winners, accompanied by their families, as well as teachers and principals from various schools, gathered for a special lunch reception. It was at this gathering that we presented each winner with their prizes, ranging from gift certificates to PS5s and Macbook Airs.

At Santa Ana's Water Resources Division, we're all about education and community engagement. Together, we can all be H2O Heroes. By making conservation a part of our daily lives, we ensure a bright future where every drop of water counts. Keep up the great work!

AGES 5-8
Grand Prize - Alexa Mendoza
Martin Elementary

Finalist - Sherlyn Castillo
Franklin Elementary

Finalist - Bristol Grissom
Martin Elementary

AGES 9-12
Grand Prize - Sebastian Leal Rivas
Wilson Elementary

Finalist - Silas Houlton
Compass Charter OC

Finalist - Angeline Parra
Lowell Elementary

AGES 13-14
Grand Prize - Sophia Tran
Bolsa Grande High School

Finalist - Stephanie Parra
Lathrop Intermediate

Finalist - Jasmin Alvarez Jalomo
Lathrop Intermediate

AGES 15-18
Grand Prize - Alam Corneli
Cesar E. Chavez High School

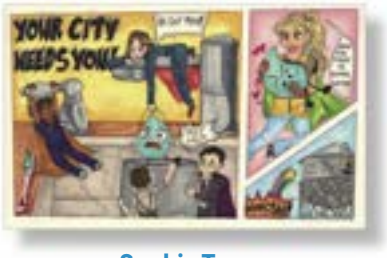
Finalist - Jesus Ornelas
Godinez Fundamental High School

Finalist - Dulce Fuentes
Middle College High School

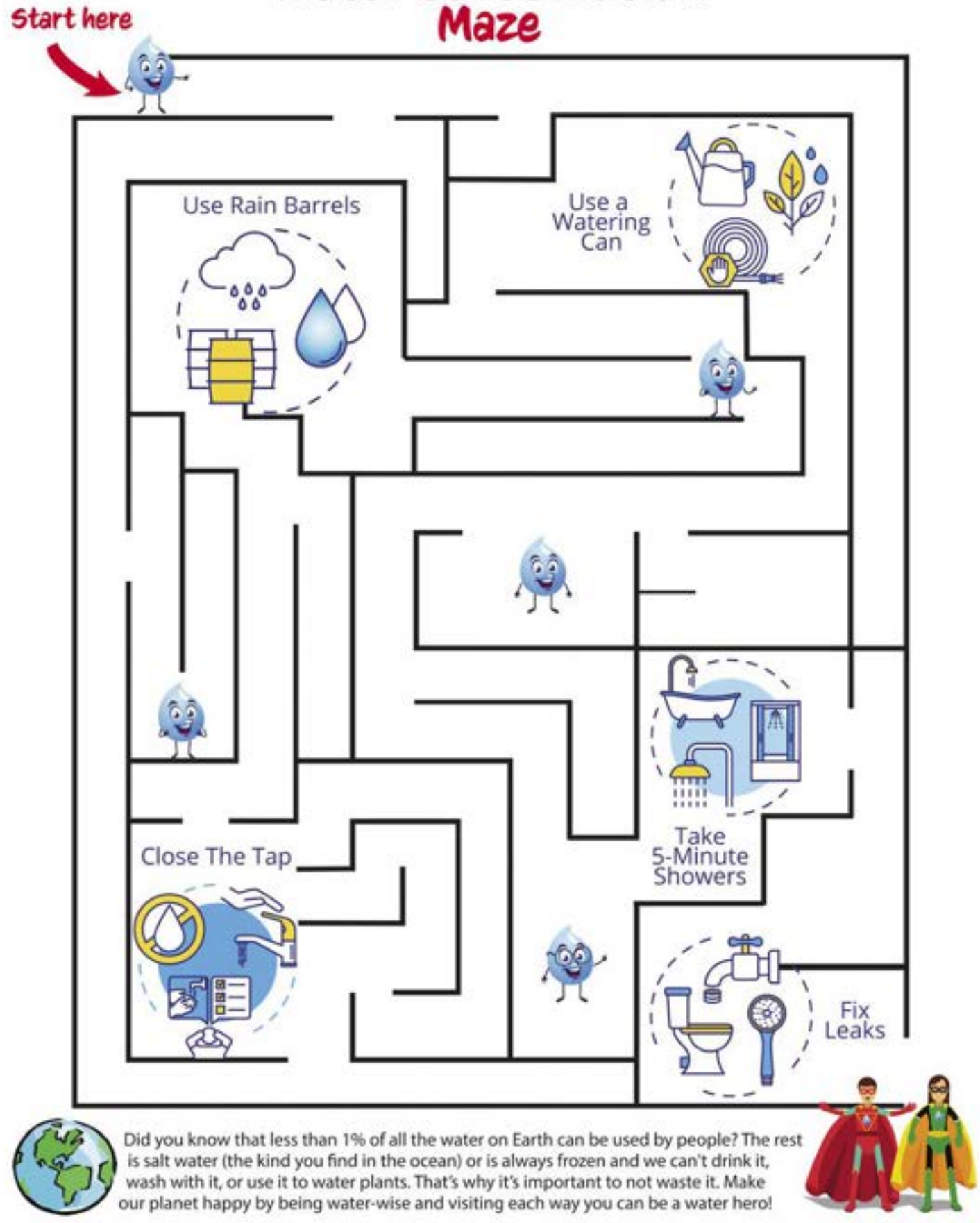
Poster Contest Reception.

2024 Poster Contest Winners.

Winning Posters 2024

	GRAND PRIZE	FINALIST	FINALIST
AGES 5-8	 Alexa Mendoza	 Sherlyn Castillo	 Bristol Grissom
AGES 9-12	 Sebastian Leal Rivas	 Silas Houlton	 Angeline Parra
AGES 13-14	 Sophia Tran	 Stephanie Parra	 Jasmin Alvarez Jalomo
AGES 15-18	 Alam Cornelio	 Jesus Ornelas	 Dulce Fuentes

Water Conservation Maze



Did you know that less than 1% of all the water on Earth can be used by people? The rest is salt water (the kind you find in the ocean) or is always frozen and we can't drink it, wash with it, or use it to water plants. That's why it's important to not waste it. Make our planet happy by being water-wise and visiting each way you can be a water hero!

H_2O Conservation Hero
Word Search

Find the words listed at the bottom of the page in the puzzle below. Draw a line around each word (words can run horizontally, vertically and diagonally).
For the answer key and more activities, scan the QR code below.

I E L B X E S P R I N K L E R
D R F N R J X N R H L M B D Z
E L R C H O G Y E T I H K I U
J K N I W K O K B L B Y F E I
S Q G B G C B M A K A S S G K
I H O S E A A U T M R H W D K
O N U V T O T L E G R O E R L
E A A T E C A I I U E W E O A
A T H Z O R K K O F L E P U W
G I T R I F S K G N O R R G N
E V Z G F J F P V Y I R M H G
F E S J Y A G A R D E N N T S
H S T M X E F E B A M O D I Y
X Q Q Y L A U N D R Y T G I A
H N F P M Q N O Z Z L E A O E

Barrel	Hose	Nozzle	Sprinkler
Broom	Irrigation	Overspray	Shower
California	Laundry	Rebate	Sweep
Drought	Lawn	Shutoff	
Garden	Natives		

SCAN ME
To view this year's Activity Book

Educating Our Community on Water

The Santa Ana Water Resources Division is dedicated to educating the community about our water system, as well as water conservation, quality, and sustainability. Our educational outreach is designed to enhance the community's understanding of water through engaging programs, informative presentations, hands-on workshops, collaborative projects, and school field trips.

Community Workshops and Projects

We collaborate with other agencies to offer free water-wise landscaping workshops covering topics like rainwater harvesting, irrigation, garden design, turf replacement, and landscaping with native plants. These workshops empower residents with practical skills to conserve water and create sustainable landscapes.

The Water Resource Division also partners with special groups for community projects, such as the recent Girl Scout Water-Wise Garden. The collaboration between Girl Scout Troop 6326 and the City of Santa Ana's Water Resources Division resulted in a garden at the Center Street entrance of the City Yard in Santa Ana. This garden is designed to inspire water conservation practices and promote sustainable landscaping within our community. City staff provided all project materials and resources and organized Hands-On Workshops (HOWs) covering essential topics such as soil health, plant selection, efficient irrigation techniques, and plant care.

Our team also delivers special presentations to community groups and neighborhood associations upon request. For example, we have presented to the Kiwanis Club of Santa Ana and Environmental Training and Compliance (ETAC) about the drought, and provided infrastructure updates to residents in neighborhoods impacted by improvements.

Student Outreach Programs

Santa Ana's Water Resources team is dedicated to enhancing students' understanding of water and related environmental issues through engaging and meaningful learning experiences. Our goal is to inspire a lifelong appreciation of water and instill a sense of shared responsibility for our ever-changing environment.

- **Annual Poster Contest:** This program curates student art from grades K through 12, illustrating conservation messages. Winning students are honored at a special awards ceremony and reception.
- **Classroom Presentations:** Custom water-education presentations cover Santa Ana's water sources, supply, distribution, quality, uses, and conservation. Concepts are taught through group activities, discussions, and games like our Every Drop Counts Tic Tac Toe.
- **Field Trips:** We will soon be offering unique field trip opportunities for teachers and students at Santa Ana's groundwater pumping plants and reservoirs.
- **Supplemental Materials:** Free activity books for youth on water-related topics and water cycle posters for schools are provided to enhance learning.

Choice School Program

In addition to our own outreach programs, we partner with other agencies and allocate funding for their programs. One example is the Municipal Water District of Southern California's (MWDOC) Choice School Program. Through this program, Santa Ana students from kindergarten to 12th grade engage in water-focused presentations, activities, and guided lessons. The program helps students identify local water supply sources, understand the challenges faced by Orange County water providers, and learn the importance of using water wisely. Last year alone, our outreach through the Choice program reached 6,549 students:

- **K-2:** 2,314 students
- **3-5:** 3,253 students
- **6-8:** 864 students
- **9-12:** 118 students

Engage & Learn

We invite community groups, schools, and neighborhood associations to contact the Water Resources Division to schedule a presentation on any number of topics including:

- Water Quality
- Water Conservation and Environmental Stewardship
- Water-Wise Landscaping
- Local Watershed and Pollution Prevention
- Water Cycle
- Infrastructure Updates Impacting Local Neighborhoods
- Santa Ana's FOG (Fats, Oils, and Grease) Program

Let's work together to educate and empower our community about the importance of water conservation and sustainability. Reach out to us today to learn more about how we can help you understand and preserve our vital water resources. Call (714) 647-3380 or email conservewater@santa-ana.org.

Hands-On Workshop with Girl Scout Troop 6326.

In the Community

Grass-to-Garden Program: Transforming Santa Ana's Landscapes

The Santa Ana Water Resources Division is making strides in promoting sustainable landscaping through its Grass-to-Garden (G2G) program. Launched last year, this initiative is transforming traditional lawns into water-efficient and aesthetically pleasing landscapes, significantly benefiting residents and the community at large.

In 2022, the division secured a $75,000 federal grant from the Bureau of Reclamation's Small-Scale Water Efficiency Program (SWEP). These funds are being used to subsidize the cost of removing turf and installing efficient irrigation systems at qualifying residential properties.

With an overwhelming response of approximately 120 applications, twelve properties were selected for the first year of the program. Each participating resident will choose from three beautiful landscape designs that are water-efficient and create natural habitats for birds and butterflies, incorporating:

- **Replacement of Water-Thirsty Lawns:**
  California native plants that require less water and provide habitats for local wildlife.
- **Efficient Irrigation Systems:**
  Modern drip irrigation to ensure optimal water use.
- **Stormwater Retention Features:**
  Berms, swales, and dry creek beds to manage runoff and enhance water retention.
- **Permeable Surfaces:**
  Mulch and other materials to minimize runoff and improve soil health.

The landscape transformation process will begin soon, with each property taking about one month to complete. The projects include removing existing turf and old irrigation systems, installing drip irrigation, planting California natives, and setting up new irrigation controllers. Residents of these properties will receive guidance on adjusting watering schedules and maintaining their new landscapes, along with one year of support after installation.

Community Engagement and Future Plans

Through our outreach efforts, the Grass-to-Garden program educates residents about the importance of sustainable landscapes, water-efficient irrigation systems, and stormwater retention. This program not only promotes water conservation and environmental restoration but also highlights the significant role of the Santa Ana Water Resources Division in enhancing community quality of life.

As the first round of installations progresses, we look forward to continuing and expanding the Grass-to-Garden program through additional grant funding in the future. Eligible residents will be notified when the next application period opens, allowing more homeowners to benefit from this transformative initiative.

Stay tuned for updates as we work to enhance Santa Ana's landscapes, making them more sustainable and beautiful for generations to come. for more information, please visit www.santa-ana.org/grass-to-garden.

This is one of three landscape designs provided courtesy of Municipal Water District of Orange County (MWDOC).

In the Community *(cont.)*

The Water Resources Division played a pivotal role in the event, presenting over seven informative exhibits covering topics from water production and maintenance to water quality and water-wise landscaping. However, the true centerpiece of the event was the pump station itself. Attendees had the unique opportunity to tour the facility and learn about the process of pumping water from the underground aquifer, its treatment, and its distribution throughout the city, ultimately reaching homes and businesses.

The first 500 guests enjoyed free, delicious La Mamalona tacos, while other food trucks lined the street, serving ice cream, churros, and more. Our Hydration Station was also on-site, providing award-winning water to keep attendees refreshed throughout the day. Adding to the family fun, the event featured raffle drawings, a thrilling water tapping competition, and engaging activities for children. Kids were thrilled with face painting, a trackless train, an exhilarating jumper obstacle course, and a fun sand digger, which gave them the experience of operating a construction vehicle.

Amidst the festivities, a large stage served as a focal point for the crowd, offering a vibrant atmosphere complete with DJ music, colorful performances, remarks from esteemed Santa Ana public officials, and the highly anticipated Annual Youth Water Poster Contest Awards Ceremony. For more details about the awards ceremony, please refer to pages 24-25 of this report.

The family-oriented event truly showcased the significance of the Water Resources Division's role in preserving and managing the city's water resources. Through interactive exhibits and informative demonstrations, attendees gained a deeper appreciation for the vital services provided by the division and the immense effort invested in ensuring the community's access to clean, reliable water.

Event Pumps Up Santa Ana's Public Works

Showcasing Community Impact on Quality of Life

On May 18, 2024, the PWA hosted a spectacular community event in celebration of National Public Works Week. With an impressive turnout of about 3,000 attendees between 11 a.m. and 3 p.m. the free event provided a wonderful opportunity for residents to explore and learn about the critical public infrastructure and services managed by the PWA, which significantly contribute to the community's overall quality of life.

The event took place at the Walnut Water Pump Station, located at 723 W. Walnut Street, and other surrounding areas. Walnut and Parton streets came alive with a captivating display of about 14 public works equipment vehicles and 32 interactive exhibits. Knowledgeable staff members were readily available throughout the event, offering engaging demonstrations, providing valuable information, and answering questions.

4th of July at Centennial Park

Santa Ana Water Resources Division brought the spark to the Fourth of July celebration at Centennial Park! Our outreach booth was bustling with activity, as staff handed out water bottles, educational materials, and fun giveaways. We also provided insights on water conservation and shared information about our award-winning water and the Fill It From The Tap campaign. This free community event lit up the sky with a 20-minute fireworks display, live music, a kid's zone, trivia, and food vendors. Guests arrived early, picnic-ready with lawn chairs and blankets, while furry friends showcased their patriotic outfits in the Santa Ana Patriotic Pup competition.

2024 Children's Water Education Festival

The Santa Ana Water Resources Division proudly participated in the 2024 Children's Water Education Festival on March 27-28, 2024, at the University of California, Irvine. Hosted by the OCWD, this two-day educational event welcomed over 5,000 students from 70 schools across Orange County.

Our team, led by staff members Nadiya Balukh, Michael Boecking, Richard Charbeneau, Natalia Doshi, Lizbeth Gonzalez, Veronica Nguyen, and Itzel Ocampo, made learning fun and engaging with a variety of interactive activities. One highlight was our Tic Tac Toe game, where students competed to answer questions about the Water Cycle following an informative and fun presentation. The game was a hit, fostering friendly competition and reinforcing key concepts about water resources and conservation.

Concerts and Movies in the Park

Our summer sizzled with the Concerts and Movies in the Park series, where the Santa Ana Water Resources Division teamed up with Parks and Recreation. At each event, our outreach booth was a crowd pleaser, offering exciting giveaways, and educational materials on water conservation, water-wise landscaping and other water-related topics.

The Concerts in the Park series in July and August filled the air with music, dancing, and delicious food at various parks. With different headliners each week, families enjoyed free, lively concerts with performances, inflatables, kid's activities, and rotating food trucks.

The Movies in the Park series delighted attendees every Friday for seven weeks during the summer. Families spread out with lawn chairs, blankets, and picnics to enjoy free screenings of family-friendly movies.

Santa Ana News

In the Community *(cont.)*

Chicano Heritage Festival

Santa Ana Water Resources Division celebrated culture at the Chicano Heritage Festival, held on August 27, 2023 at El Salvador Park. Our outreach booth was buzzing with activity as we handed out giveaways and educational materials on a wide-range of topics including water saving tips, water quality and sustainable landscaping. The festival, a vibrant celebration of Santa Ana's rich Mexican American history, featured food, carnival rides, arts, a kid's zone, cultural exhibits, live music, a car cruise and show, and inspiring guest speakers.

Fiestas Patrias

The 43rd annual Fiestas Patrias festival and parade on September 16-17, 2023, was a fiesta to remember! Santa Ana Water Resources Division was front and center with our outreach booth, sharing information on water quality, our Fill It From The Tap campaign, and other initiatives. Our Hydration Station kept festival-goers and their pets refreshed with our award-winning water while staff handed out giveaways. The festival celebrated Mexican independence with a parade themed "Hispanic Heritage: Past to Present," live performances by A.B. Quintanilla III's Kumbia All Starz, Graciela Beltran, and Banda Los Sebastianes, as well as a weekend full of carnival rides, food vendors, and shopping.

Tet (Lunar New Year) Festival

The second annual Santa Ana Tết (Lunar New Year) Festival on February 3, 2024 at Centennial Park was a colorful and lively celebration of our community's Asian and Vietnamese cultures. Santa Ana Water Resources Division joined the festivities with an engaging outreach booth. We offered educational materials about water conservation, water-wise landscaping, and our Fill It From The Tap campaign, along with giveaways ranging from water bottles to notebooks and pens. The event featured cultural performances, live entertainment, dancing, a fashion show, food vendors, a library lane, a kids zone, and a spectacular fireworks show.

Me Encanta Santa Ana

Me Encanta Santa Ana, held on April 20, 2024, brought the community together in a lively and meaningful celebration of Earth Day and Arbor Day. The Santa Ana Water Resources Division joined in the festivities at this inaugural event, hosted by the PWA and Santa Ana Parks, Recreation & Community Services Agency. Our dedicated team, comprised of Richard Charbeneau, Natalia Doshi, Michael Boecking, Jaime Bermudez, Diana Mazariego, James Burk, and Marco Flores, was at our outreach booth, handing out seed packets of drought-resistant plants and gardening gloves. Volunteers of all ages rolled up their sleeves for park clean-ups, community garden maintenance, painting, landscaping, and facility maintenance, emphasizing the importance of volunteerism and environmental stewardship. It was a fun and productive day for everyone involved.

The event concluded with a concert and resource fair at Jerome Park, focusing on environmental responsibility and wellness. Our team continued to engage with the community, sharing essential information about drinking water quality, water efficiency, conservation, protecting our watershed and other important programs for Santa Ana residents. The end-of-day celebration included music, games, food, and exhibitor booths, making it a fun and informative day for all involved.

Keeping Santa Ana Kids Hydrated

In May 2024, an emergency water repair disrupted the water supply for the surrounding area, including Davis Elementary School. In response, the Santa Ana Water Resources Division deployed its Hydration Station to ensure students had access to clean drinking water. This uniquely decorated mobile water filling station, with its 330-gallon storage capacity, eight water fountains, and eight water bottle filling taps, provided a convenient and sustainable solution.

That day, staff also distributed water bottles and activity books to the students, turning a challenging situation into an engaging and educational experience. Our responsiveness and solution were such a success that Davis Elementary School requested the Hydration Station for their last day of school event in May.

Santa Ana News

Line-Up of Events

Our Water Resources outreach team is dedicated to informing the community about the quality of their drinking water, promoting water-efficient practices, and providing details on rebate programs and other water-related initiatives. Community outreach is an important part of our efforts, as it helps build a well-informed and engaged public that understands the value of water conservation and quality.

We participate in a variety of events throughout the year, and we invite you to join us at the upcoming ones. Visit our exhibit booth, where our friendly staff will be ready to answer your questions. Don't miss this chance to learn more, get free giveaways, and enjoy a refreshing glass of Santa Ana's award-winning water.

We look forward to meeting you soon!

July	
July 04, 3:00 p.m. – 9:00 p.m.	4th of July at Centennial Park
July 12, 6:00 p.m.	Movies in the Park, Heritage Park *Aladdin*
July 18, 6:00 p.m. – 8:30 p.m.	Concerts in the Park, Thorton Park *Southland Mega Groove*
July 19, 6:00 p.m.	Movies in the Park, Rosita Park *Kung Fu Panda 4*
July 25, 6:00 p.m. – 8:30 p.m.	Concerts in the Park, Portola Park *The OC3*
July 26, 6:00 p.m.	Movies in the Park, Santa Ana Zoo *Tarzan*
July 28, 9:00 a.m. – 3:00 p.m.	Back-to-School Resource Fair Santa Ana Elks Lodge, 1751 S. Elk Lane
July 31, 7:00 p.m.	Shakespeare in the Park, Birch Park

August	
August 01, 6:00 p.m. – 8:30 p.m.	Concerts in the Park, Jerome Park *Melrose Band*
August 03, 2:00 p.m. – 7:00 p.m.	Chicano Heritage Festival, Centennial Park
August 08, 6:00 p.m. – 8:30 p.m	Concerts in the Park, Memorial Park *SAVOR: Santana Tribute Band*

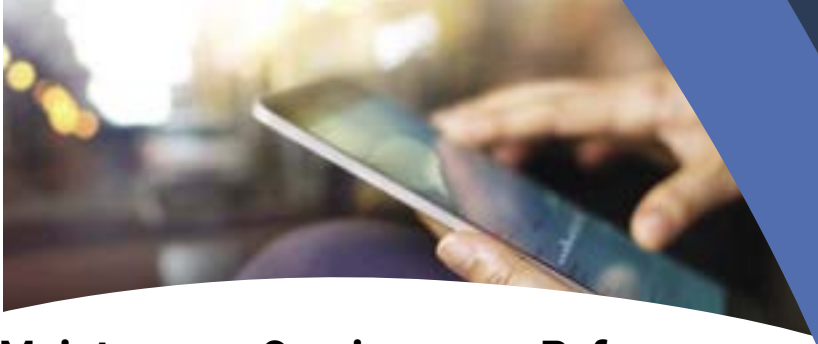
September	
September 14, 12:00 p.m. – 11:00 p.m.	Fiestas Patrias, Flower Street between Civic Center Drive & Santa Ana Blvd.
September 15, 12:00 p.m. – 10:00 p.m.	Fiestas Patrias, Flower Street between Civic Center Drive & Santa Ana Blvd.

October	
October 05, 4:00 p.m. – 8:00 p.m.	Mid-Autumn Festival, Centennial Park

November	
November 23, 5:00 p.m. – 8:00 p.m.	Plaza Navideña, Plaza Calle Cuatro

For details and a complete listing of city events, visit www.santa-ana.org/city-events.

Useful Numbers to Call



General Services

Building Inspection Request Line
714-667-2738

City Manager
714-647-5200

Fire Department
714-573-6000
(call 911 for emergencies)

Mayor and City Council
714-647-6900

Parks & Recreation
714-571-4200

Planning & Building, Planning Division
(Environmental Review, Historic Preservation & New Development)
714-667-2700

Police Department (general line)
714-245-8665
(call 911 for emergencies)

Public Library
714-647-5250

Public Works

General Maintenance and Repairs
Sanitation
Street Sweeping
Trees
Weed Abatement
714-647-3380

Public Works Emergency Repairs
(after hours) 714-834-4211

Public Works Information
714-647-5690

Shopping Cart Removal
714-667-2780

Street Lights
714-647-5074

Maintenance Services

Curb & Sidewalks
Pothole Repairs
714-647-3380

Graffiti Removal
877-786-7824

Water Resources

Water and Sewer
714-647-3380

Water Resources
Administration & Engineering
Water & Sewer
Maintenance & Construction
Water Production
714-647-3320

Water Quality & Conservation
714-647-3500

Municipal Utility Services & Billing
714-647-5454

Permits and Development
714-647-5690

Traffic and Transportation

Signal Repairs
(Weekdays 8 a.m.-5 p.m.)
714-647-5620

Signal Repairs - Police Department
(Evenings/Weekends)
714-834-4211

Street Work Permits
714-647-5039

Traffic Operations
714-647-5619

Refuse Collection

Trash Cart Replacement/ Dumpster Orders
714-558-7761

Recycle Used Motor Oil & Filters
714-558-7761 (residents with curbside trash collection)
714-834-6752 (residents with bin service)

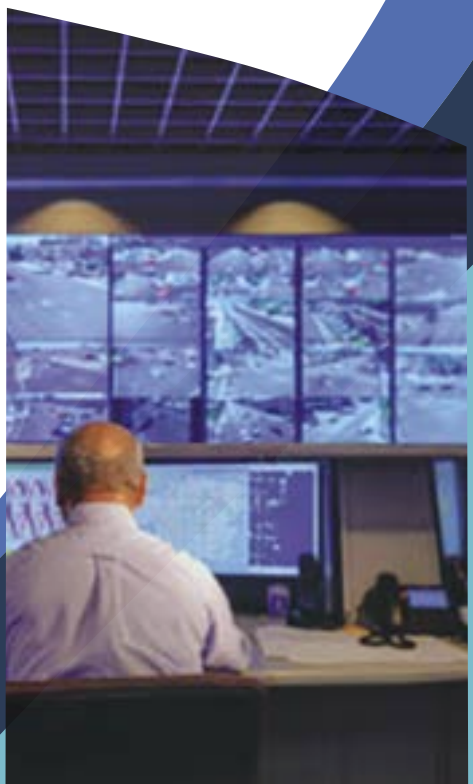
Other Helpful Numbers

Bus Information
714-636-7433

Noise Complaints
714-834-4211

Overcrowding
714-667-2780

Poison Control Center
800-876-4766



If you have questions about your water quality, contact:

City of Santa Ana, Water Resources Division
Cesar E. Barrera P.E., Deputy Public Works Director/Water Resources Manager
Armando Fernandez P.E., Principal Civil Engineer
Heidi Chou P.E., Principal Civil Engineer
Robert Hernandez, Water Services Quality Coordinator

220 South Daisy Avenue, Bldg A, Santa Ana, California 92703
phone: 714-647-3380 | email: conservewater@santa-ana.org
web: www.santa-ana.org

Get Involved

If you would like to be involved in issues and decisions that affect the quality and cost of your drinking water, City Council meetings are open to the public and held at 5:45 p.m. on the first and third Tuesday of each month. The meeting location is at City Council Chambers, 22 Civic Center Plaza Santa Ana, CA 92701.

For more information, contact:
Santa Ana City Council
20 Civic Center Plaza
P.O. Box 1988, M31
Santa Ana, CA 92702
phone: 714-647-6900

Follow Us

www.facebook.com/CityofSantaAna/
www.instagram.com/cityofsantaana/
www.santa-ana.org
www.santaanaccr.org

Este informe contiene información importante sobre su agua potable.
Favor de comunicarse con la División de Recursos Hídricos de la ciudad de Santa Ana al 714-647-3380 para obtener asistencia en español.

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên lạc Santa Ana tại 714-647-3380 để được trợ giúp bằng tiếng việt.

这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系
Santa Ana Water Resources Division 以获得中文的帮助: 714-647-3380.