

2024 WATER QUALITY REPORT



Resilience in Every Drop:
Protecting Water Quality and Planning for the Future



Water Quality



Resilience



Santa Ana News



A Message From **Nabil Saba**



I am committed to improving the quality of life for our residents by efficiently maintaining our infrastructure.



Dear Santa Ana community,

As Executive Director of Public Works, I'm proud to share the progress we've made over the past year in improving our city's infrastructure, safety, and quality of life. Our mission is broad—serving every Santa Ana resident through services that touch daily life, from water and roadways to trees, sidewalks, parks, and more.

This year marks a major milestone in our long-term capital improvement program. We recently awarded contracts for the final phases of the Bristol Street widening project—Phases 3A and 4—which have been nearly two decades in the making. When complete, the corridor from 17th Street to Sunflower Avenue will feature six travel lanes, protected bike lanes, landscaped medians, and upgraded pedestrian safety features. This regional connector improves mobility not just for Santa Ana, but for the greater Orange County area. These improvements not only strengthen mobility and safety—they also contribute to environmental resilience and a healthier city.

We've also broken ground on the \$29 million Memorial Park Aquatic Center, the first of its kind in Santa Ana. Replacing a decades-old pool, the new facility will include recreational and competition pools, a water slide, and family-friendly amenities, all designed to better serve our growing community by summer 2026.

Looking ahead, we have over \$230 million in construction activities underway across 50 major projects. These include street repairs, community center upgrades, all-ability playgrounds, stormwater improvements, and enhancements to neighborhood parks and green spaces. Our team also continues to lead with responsive maintenance services, addressing nearly 98,000 service requests through the MySantaAna App this year, many within just 48 hours.

None of this work would be possible without strategic planning and our success in securing funding from state, federal, and local sources. From improving street safety to modernizing parks and advancing water system upgrades like Smart Meters, we're investing in infrastructure that not only improves daily life but also protects public health and supports long-term water resilience.

I'm especially proud of how our Water Resources Division continues to lead with expertise, foresight, and operational excellence—delivering water our community can trust, even as new challenges impacting water quality and supply emerge.

I want to thank our residents for your continued support and engagement. While construction may bring temporary inconvenience, the long-term benefits will be transformative. These include enhancing quality of life, protecting public health, and building a more resilient water system and city infrastructure for generations to come.

Sincerely,

Nabil Saba P.E.
Executive Director
Public Works Agency

A Message From **Cesar E. Barrera**

Resilience is at the heart of everything we do at the Water Resources Division. We face many challenges—from adapting to changing climate and evolving regulations to aging infrastructure and growing community needs. Through it all, we remain focused on proactive planning, smart investments, and a deep commitment to delivering safe, clean, great-tasting water—today and for future generations.

In this report, you'll find results from thousands of tests conducted last year to ensure your water meets or exceeds all state and federal standards. But those numbers are just part of the story. Behind each test result is a dedicated team working year-round to maintain water quality, monitor system performance, and take swift action when challenges arise.

Over the past year, we've made significant progress on capital improvement projects that strengthen our water system's ability to withstand future challenges. This includes expanding PFAS treatment infrastructure at multiple well sites, continuing the Washington Avenue Well project, and preparing to drill another well to increase our local supply. Behind the scenes, we're modernizing technology through tools like the Advanced Metering Infrastructure (AMI) system, giving residents more insight into their water use while enhancing operational efficiency.

Looking ahead, one of the most exciting developments is the formation of our new in-house Construction Services Section. This dedicated team will manage water and sewer infrastructure upgrades more directly—streamlining project delivery, reducing costs, and improving our ability to respond to evolving needs. By reducing reliance on outside contractors, we can ensure timely upgrades that benefit our community. You'll read more about this important milestone in a featured article later in this report.

Beyond infrastructure, resilience also means financial stewardship. We continue to secure outside funding for critical projects, including grants and cost-sharing through our partnership with the Orange County Water District. These efforts help us move key projects forward while minimizing the financial impacts on residents.

Our vision is simple: a strong, future-ready water system that continues to deliver award-winning water with every turn of the tap. Delivering high quality, great-tasting water takes more than infrastructure. It is a complex, round-the-clock operation. From source protection and treatment to pipeline maintenance and system upgrades, every drop is backed by strategy, science, and a team that cares.

We are grateful for the continued support of the Mayor, City leadership and our Santa Ana community. Together, we are investing in long-term water reliability and environmental stewardship.

Thank you for reading this report and for being our partners in conservation and sustainability.

Sincerely,



Cesar E. Barrera P.E.

Deputy Public Works Director/Water Resources Manager



Every drop
is backed by
strategy, science,
and a team
that cares.



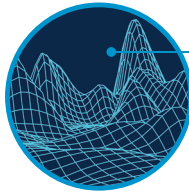
About This Report

The Consumer Confidence Report (CCR) is a yearly summary of Santa Ana's drinking water quality. It explains where your water comes from and what's in it.

At the heart of the report are data tables showing year-round test results for more than 120 constituents (substances found in water, whether naturally occurring or a result of human activities). These tables list the quantity of each constituent detected in Santa Ana's water, how it compares with the allowable state and federal limits, and where it likely came from. Only constituents detected in Santa Ana's water are included in the data tables. This report covers only tap water provided by the City—not bottled water.

Read on to learn more about your tap water and how the City ensures the highest quality 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.



Which regulated contaminants were detected and their level.



Potential health effects of contaminants and how protections are in place to prevent water-related illnesses.



How your drinking water compares to national standards and any violations of health based standards.

In 2024, Santa Ana's tap water met all federal and state drinking water health standards. Our commitment to water quality remains steadfast, and once again, we are proud to report that our system has never exceeded a maximum contaminant level or any other water quality standard.

About Your Drinking Water

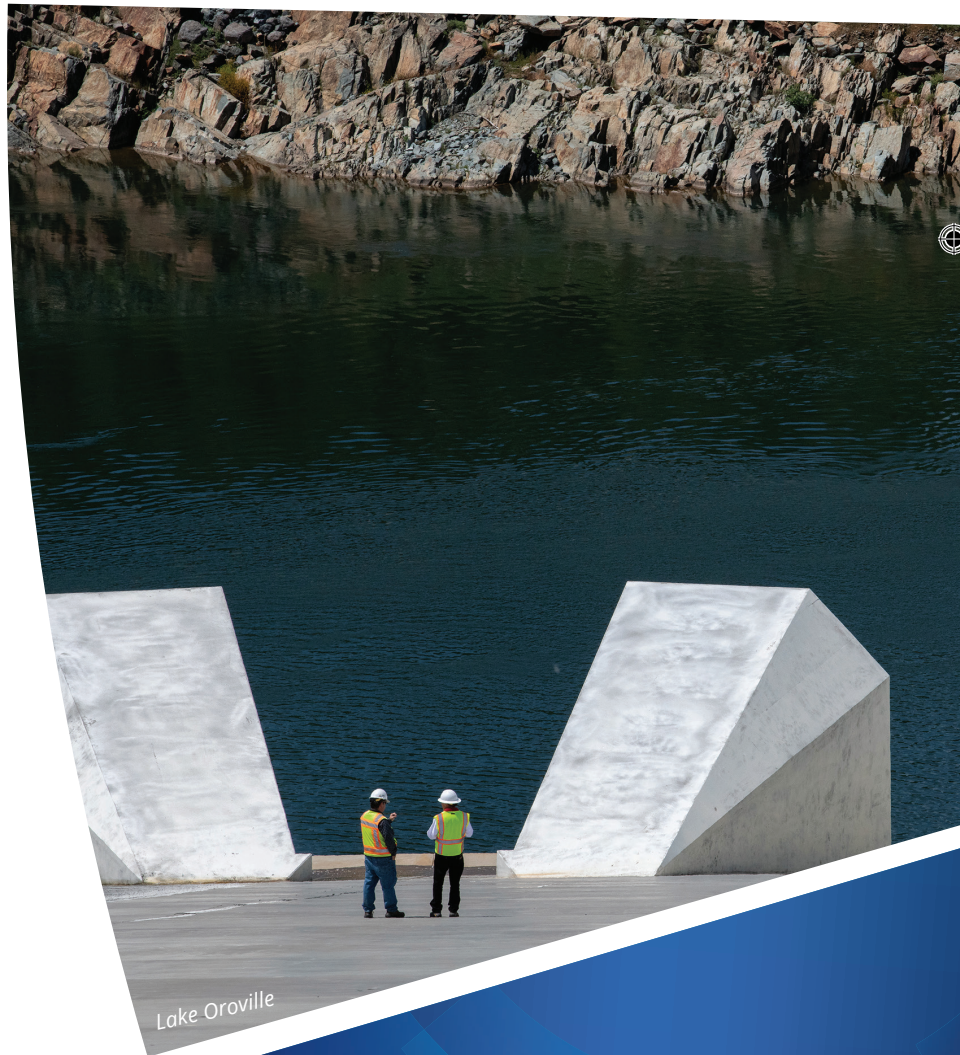
Santa Ana's Sources of Water Supply

Every year, the City of Santa Ana delivers 10 billion gallons of water to residents and businesses, drawing from two sources: 85% groundwater and 15% imported water from the Metropolitan Water District of Southern California (MWD). MWD is a regional wholesaler serving 26 member agencies across Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.

Imported Water— MWD transports Colorado River water from Lake Havasu through the 242-mile Colorado River Aqueduct to Lake Mathews near Riverside. It also brings water from Northern California's Sacramento-San Joaquin River Delta via the 444-mile California Aqueduct, part of the State Water Project. This water is treated at the Diemer Filtration Plant in Yorba Linda or the Weymouth Water Treatment Plant in La Verne before reaching Santa Ana. The city has seven MWD connections.

Groundwater—Santa Ana sits atop the Orange County Groundwater Basin, which holds approximately 500,000 acre-feet (162.9 billion gallons) of usable water and spans 270 square miles. The basin's deep aquifers, extending more than 2,000 feet, naturally filter water as it moves through layers of sediment. Santa Ana pumps groundwater to the surface using 20 city-owned wells.

Most customers receive a blend of groundwater and imported water. The water quality standards for each source are detailed in the data tables starting on page 14. Imported water and groundwater are listed separately, along with an additional table showing the quality of Santa Ana's water distribution system.





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 because, at certain levels, they may pose health risks.

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 constituents 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.

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.

Maximum Residual Disinfectant Level Goal

The level of a drinking water disinfectant below which there is no known or expected risk to health. The MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.





Regulatory Requirements (cont)

Maximum Allowed Levels of Constituents

Regulatory agencies set maximum contaminant levels (MCLs) for constituents to ensure drinking water is safe and looks, tastes, and smells good. Some constituents are listed with "TT" (Treatment Technique) in the MCL column because they do not have a numerical MCL. Instead, specific treatment requirements must be met.

One constituent, **total chlorine residual**, has a **Maximum Residual Disinfectant Level (MRDL)** instead of an MCL. The MRDL is the maximum level of a disinfectant allowed in treating drinking water. While disinfectants are necessary to eliminate harmful microbes, drinking water regulations also limit how much disinfectant may be added.

Turbidity is another constituent with a unique requirement, whereby 95% of the measurements taken must remain below a specified level. Turbidity is a measure of the cloudiness of 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 detected 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 average levels recorded, not the range.



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 and 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 <http://cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/Water.aspx>.

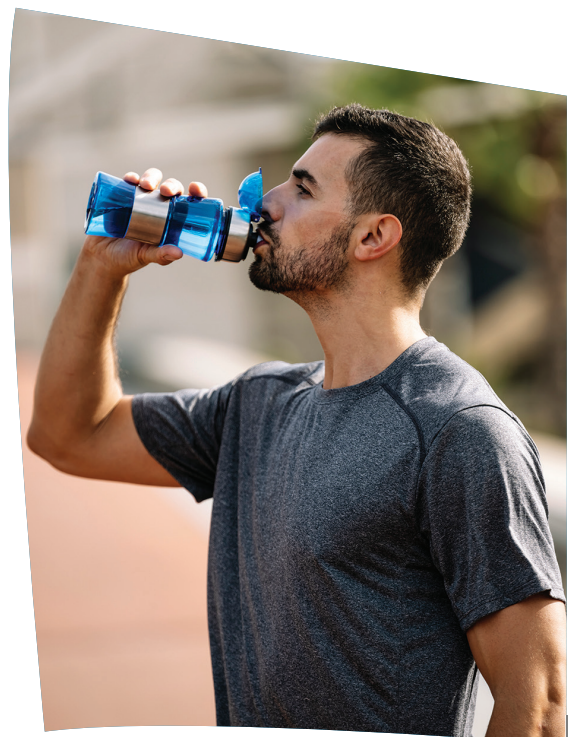


Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.



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 can be found by calling the U.S. EPA's Safe Drinking Water hotline at 800-426-4791 or online at: www.epa.gov/ground-water-and-drinking-water and www.cdc.gov/drinking-water.



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 Colorado River Watershed Sanitary Survey 2022 Update and the California State Water Project Watershed Sanitary Survey 2021 Update. 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 in 2024. 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

Help protect Santa Ana's groundwater—match the right solution to each pollution!

SOLUTION (How to help)

1. Dispose of unused medication at a designated drop-off site.
2. Pick up pet waste and dispose of it in the trash.
3. Fix car leaks to prevent oil from washing into storm drains.
4. Install rain gardens or use pervious surfaces to reduce polluted runoff.
5. Choose a commercial car wash that recycles water.
6. Reduce pesticide and fertilizer use, especially before rain.
7. Properly dispose of household chemicals like paint, cleaners, and motor oil.
8. Repair sewer plumbing to prevent leaks that can contaminate groundwater.
9. Don't litter—pick up trash so it doesn't end up in storm drains.
10. Contact your city and ask to volunteer at a cleanup day event.

POLLUTION (What it prevents)

- A. Motor oil leaks
- B. Flushing medications
- C. Pet waste
- D. Fertilizers and pesticides
- E. Car washing at home
- F. Paint, cleaners, and chemicals
- G. Sewer pipe leaks and corrosion
- H. Trash in gutters and storm drains
- I. Runoff carrying pollutants into storm drains
- J. Litter in your local waterway

Answer Key:

9-H, 10-J
5-E, 6-D, 7-F, 8-G,
1-B, 2-C, 3-A, 4-I



Additional Information of Interest

Lead and Copper in Residential Plumbing

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. The City of Santa Ana is responsible for providing high quality drinking water and removing public lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time.

You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly.

Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period.

If you are concerned about lead in your water, or have any questions, contact the Santa Ana Water Resources Division at 714-647-3380. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at www.epa.gov/safewater/lead.

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 CDC and the State Water Board. MWD adjusts fluoride levels 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_Fluoride, 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_Fluoride.

Lead-Free Checklist

- **Use only cold water** for drinking, cooking, and making baby formula. (Boiling water does not remove lead).
- **Clear standing water before use**—Flush your pipes by running your tap, taking a shower, or doing a load of laundry before using water for drinking, cooking, or making baby formula.
- **Use a certified filter to reduce lead exposure**—Ensure it is certified by an American National Standards Institute (ANSI) accredited certifier and follow the manufacturer's instructions.
- **Choose lead-free fixtures**—Before 2014, "lead-free" plumbing products could contain up to 8% lead. Look for faucets, valves, and fittings that contain no more than 0.25% lead.
- **Identify and replace lead-containing plumbing** such as lead service lines or galvanized pipes that were connected to lead service lines.
- **Flush pipes after plumbing work**—New pipes or fixtures can release metals. Run cold water at a high flow rate for five minutes daily for at least three days.





Additional Information of Interest

Protecting Your Drinking Water from Cross-Connections

The City of Santa Ana works diligently to deliver high-quality drinking water, but once water enters your property, potential risks can arise. One major concern is cross-connections, which can allow contaminants to enter your drinking water if not properly managed.

A cross-connection occurs when a water supply line is connected to equipment or systems that contain non-potable substances (unsafe to drink). Examples include:

- A hose submerged in polluted water
- A heating boiler with treatment chemicals
- An underground lawn sprinkler system

To help safeguard the water system, the City maintains a robust cross-connection control program. Backflow preventers are installed at high-hazard facilities and other designated premises to protect against backflow. The City also performs routine hazard assessments and on-site inspections to identify any potential or existing cross-connections and ensure appropriate protections are in place.

How You Can Help Protect Your Home

In addition to the City's system-wide protections, individual property owners play a vital role in preventing cross-connections. Simple, affordable devices can safeguard both your home's drinking water and the public distribution system:

Air Gap—An open space between a water outlet and the highest possible water level in a sink, tub, or tank. This prevents contaminated water and any substances within it from being siphoned back into the drinking water supply if water pressure drops. Common examples include the metal cap near kitchen sinks for dishwashers (often called an "air gap fitting") and the space between a faucet spout and a sink or tub.



Atmospheric Vacuum Breaker (AVB)—A device installed on outdoor irrigation systems and certain plumbing fixtures to prevent contaminated water from flowing back into the drinking water supply. AVBs feature an air inlet valve that opens when water pressure drops, breaking any siphoning effect that could draw in pooled water around sprinkler heads that may contain fertilizers, pesticides, or animal waste. These must be installed above the highest point of water use in a system.

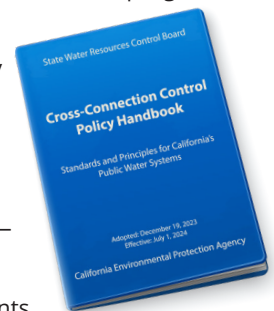


Hose Bibb Vacuum Breaker—A small, screw-on device that attaches to outdoor faucets (spigots) to prevent backflow from garden hoses. It contains a spring-loaded check valve that stays closed during normal water use but opens to release air if pressure drops, preventing contaminated water from being siphoned back into the home's plumbing or the public water system. HBVBs are essential for garden hoses, preventing backflow if the hose end is submerged in water or exposed to contaminants.

New Policy Handbook

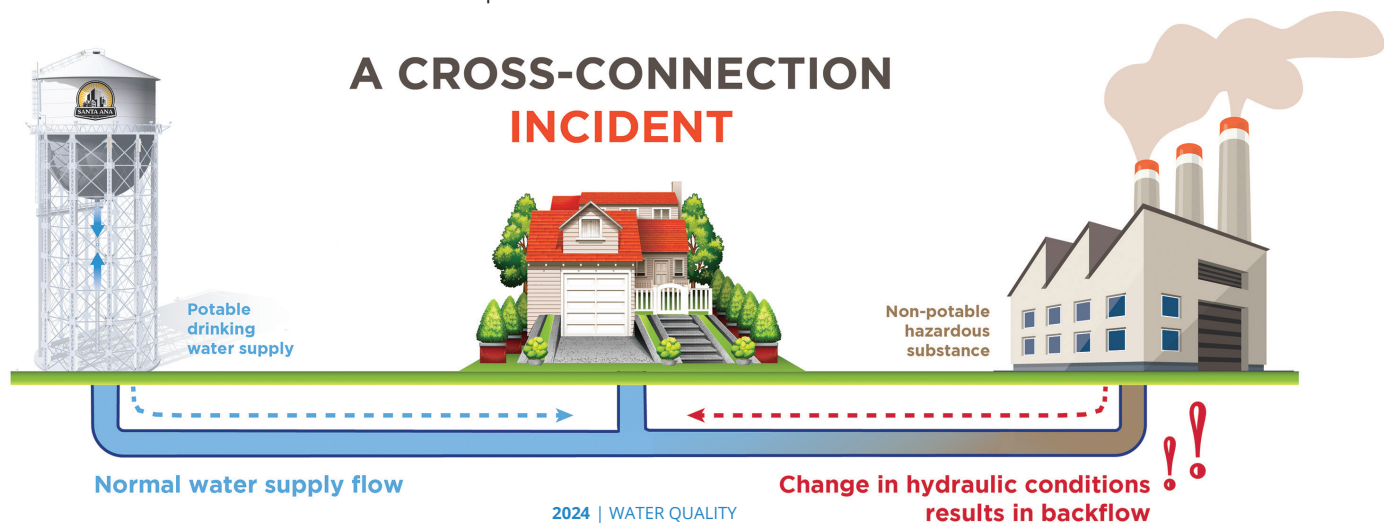
As of July 1, 2025, the City of Santa Ana is in full compliance with the State Water Board's Cross-Connection Control Policy Handbook (CCCPH). This updated policy reinforces one of the most important tools we use to protect our drinking water from contamination: preventing backflow from non-potable sources.

The CCCPH enhances the City's already strong cross-connection control program by providing updated technical guidance, regulatory requirements, and educational materials. The goal is to protect the drinking water distribution system—and the community that relies on it—by ensuring contaminants cannot enter through cross-connections.



You may ask: how does the City ensure our water remains safe? Preventing backflow is a key part of the answer. Through inspections, enforcement, and community education, this program helps maintain the quality and reliability of Santa Ana's water supply.

Residents and businesses play an essential role, too. By understanding cross-connections and installing appropriate backflow prevention devices, you help safeguard the water in your home and across the entire community.





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, start with the chemical name and read across.

- 1 The 'Chemicals' column lists substances found in Santa Ana's drinking water.
- 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.



Glossary

Terms & Abbreviations

Chemicals

Elements or compounds 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)

MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting 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 a contaminant in drinking water.

Variances and Exemptions

State Water Board permission to exceed an MCL or not comply with a TT under certain conditions.

Additional Abbreviations

AL	=	Regulatory Action Level
NA	=	Not Applicable
ND	=	Not Detected
NL	=	Notification Level
SMCL	=	Secondary MCL

Measurements

Santa Ana conducts extensive sampling and testing to ensure your water meets all water quality standards. In 2024 we collected 19,646 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.



2024 Water Quality Tables

2024 CITY OF SANTA ANA DISTRIBUTION SYSTEM'S WATER QUALITY

1

2

4

5

6

7

Type	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)	1.01	ND - 2.9	No	Disinfectant Added for Treatment
Total Trihalomethanes (ppb)	80	45	ND - 34	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	17	ND - 10	No	Byproducts of Chlorine Disinfection
AESTHETIC QUALITY					
Color (color units)	15*	ND	ND - 10	No	Naturally-Occurring Organic Materials
Odor (threshold odor number)	3*	1	1 - 2	No	Naturally-Occurring Organic Materials
Turbidity (ntu)	5*	ND	ND - 1.1	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).

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 - 0.29	2020
Lithium (ppb)	n/a	n/a	4.4	ND - 35	2024
Manganese (ppb) **	SMCL = 50	n/a	ND	ND - 0.9	2020
Perfluoro Hexane Sulfonic Acid (ppt)	3	n/a	2.7	ND - 7.3	2024
Perfluoro Hexanoic Acid (ppt)	n/a	n/a	ND	ND - 3.5	2024
Perfluoro Octane Sulfonic Acid (ppt)	6.5	1	3.8	ND - 13	2024
Perfluoro Octanoic Acid (ppt)	5.1	0.007	2.4	ND - 7.5	2024
Perfluoro Pentanoic Acid (ppt)	n/a	n/a	ND	ND - 3.7	2024
Total Organic Carbon (Unfiltered) (ppm)	n/a	n/a	0.18	0.08 - 0.29	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.

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	0.81	ND - 3.9	2020
Bromodichloroacetic acid (ppb)n/a	n/a	n/a	0.86	ND - 2.1	2020
Chlorodibromoacetic acid (ppb)n/a	n/a	n/a	0.55	ND - 1.4	2020
Dibromoacetic acid (ppb)	n/a	n/a	0.66	ND - 2.0	2020
Dichloroacetic acid (ppb)	n/a	MCLG = 0	1.1	ND - 6.1	2020
Monobromoacetic acid (ppb)	n/a	n/a	ND	ND - 0.4	2020
Trichloroacetic acid (ppb)	n/a	MCLG = 20	1.0	ND - 2.5	2020

2024 Water Quality Tables

2024 CITY OF SANTA ANA GROUNDWATER QUALITY



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Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Chemical
Radiologicals							
Uranium (pCi/l)	20	0.43	2.6	ND – 4.9	No	2024	Erosion of Natural Deposits
Inorganic Chemicals							
Arsenic (ppb)	10	0.004	ND	ND – 2.5	No	2024	Erosion of Natural Deposits
Barium (ppm)	1	2	ND	ND – 0.107	No	2024	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.33	0.18 – 0.42	No	2024	Erosion of Natural Deposits
Hexavalent Chromium (ppb)	10	0.02	1.4	0.29 – 2.3	No	2024	Erosion of Natural Deposits
Nitrate (ppm as N)	10	10	2	0.52 – 3.5	No	2024	Runoff and Leaching from Fertilizer Use; Leaching from Septic Tanks and Sewage; Erosion of Natural Deposits
Nitrate + Nitrite (ppm as N)	10	10	2	0.52 – 3.5	No	2024	Runoff and Leaching from Fertilizer Use; Leaching from Septic Tanks and Sewage; Erosion of Natural Deposits
Perchlorate (ppb)	6	1	1.2	ND – 2.8	No	2024	Discharge from Industrial Operations
Selenium (ppb)	50	30	ND	ND – 7.6	No	2024	Discharge from Industrial Operations; Erosion of Natural Deposits
Secondary Standards*							
Chloride (ppm)	500*	n/a	44	21 – 71	No	2024	Erosion of Natural Deposits
Color (color units)	15*	n/a	ND	ND – 3	No	2024	Naturally-occurring organic materials
Specific Conductance (umho/cm)	1,600*	n/a	629	460 – 789	No	2024	Substance that forms ions when in water
Sulfate (ppm)	500*	n/a	84	51 – 130	No	2024	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	395	274 – 488	No	2024	Erosion of Natural Deposits
Turbidity (ntu)	5*	n/a	ND	ND – 0.15	No	2024	Soil Runoff
Unregulated Chemicals							
Alkalinity, total (ppm as CaCO ₃)	Not Regulated	n/a	164	146 – 179	n/a	2024	Erosion of Natural Deposits
Bicarbonate (ppm as HCO ₃)	Not Regulated	n/a	202	178 – 219	n/a	2024	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	73	42 – 93	n/a	2024	Erosion of Natural Deposits
Hardness, total (grains/gal)	Not Regulated	n/a	4.3	2.5 – 5.5	n/a	2024	Erosion of Natural Deposits
Hardness, total (ppm as CaCO ₃)	Not Regulated	n/a	242	136 – 307	n/a	2024	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	14	8.4 – 18	n/a	2024	Erosion of Natural Deposits
Perfluoro Butane Sulfonic Acid (ppt)	NL = 500	n/a	ND	ND – 3	n/a	2024	Industrial Discharge
Perfluoro Butanoic Acid (ppt)	Not Regulated	n/a	ND	ND – 5	n/a	2024	Industrial Discharge
Perfluoro Hexane Sulfonic Acid (ppt)	NL = 3	n/a	ND	ND – 9.5	n/a	2024	Industrial Discharge
Perfluoro Hexanoic Acid (ppt)	Not Regulated	n/a	ND	ND – 4.1	n/a	2024	Industrial Discharge
Perfluoro Octane Sulfonic Acid (ppt)	NL = 6.5	1	ND	ND – 18	n/a	2024	Industrial Discharge
Perfluoro Octanoic Acid (ppt)	NL = 5.1	0.007	ND	ND – 8.7	n/a	2024	Industrial Discharge
Perfluoro Pentanoic Acid (ppt)	Not Regulated	n/a	ND	ND – 6.3	n/a	2024	Industrial Discharge
pH (pH units)	Not Regulated	n/a	8	7.8 – 8	n/a	2024	Acidity, Hydrogen Ions
Potassium (ppm)	Not Regulated	n/a	2.3	1.5 – 2.9	n/a	2024	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	43.6	37.1 – 52	n/a	2024	Erosion of Natural Deposits

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

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 / 66	No	Internal Corrosion of Household Water Plumbing Systems; Discharges from Industrial Manufacturers; Erosion of Natural Deposits
Copper (ppm)	1.3	0.3	0.17	0 / 66	No	Internal Corrosion of Household Water Plumbing Systems; Discharges from Industrial Manufacturers; Erosion of Natural Deposits

In 2024, 66 residences were tested for lead and copper at-the-tap. Lead was not detected in any sample. Copper was detected in 52 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.



2024 Water Quality Tables

2024 METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA TREATED SURFACE WATER QUALITY

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Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
Radiologicals – Tested in 2023 and 2024						
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND – 5	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	4	ND – 5	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 2024						
Aluminum (ppm)	1	0.6	ND	ND – 0.11	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.124	0.124	No	Refinery Discharge, Erosion of Natural Deposits
Bromate (ppb)	10	0.1	ND	ND – 1.6	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm)	2	1	0.7	0.6 – 0.8	No	Water Additive for Dental Health
Secondary Standards – Tested in 2024						
Aluminum (ppb)	200*	600	ND	ND – 110	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	104	93 – 116	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	1	1	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	979	888 – 1,070	No	Substances That Form Ions in Water
Sulfate (ppm)	500*	n/a	224	196 – 253	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	621	556 – 686	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2024						
Alkalinity, total as CaCO ₃ (ppm)	Not Regulated	n/a	114	105 – 123	NA	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.14	0.14	NA	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	68	58 – 78	NA	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO ₃ (ppm)	Not Regulated	n/a	270	235 – 305	NA	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	16	14 – 18	NA	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	26	22 – 29	NA	Runoff or Leaching from Natural Deposits
pH (units)	Not Regulated	n/a	8.2	8.2	NA	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.9	4.4 – 5.4	NA	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	103	90 – 116	NA	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.4	2 – 2.5	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	0.06	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 Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a **"treatment technique" (TT)**. A treatment technique is a required process intended to reduce the level of chemicals in drinking water that are difficult and sometimes impossible to measure directly. **NTU** = nephelometric turbidity units.

UNREGULATED CONSTITUENTS REQUIRING MONITORING

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Lithium (ppb)	n/a	n/a	22	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 is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

In 2024, 66 residences were tested for lead and copper at-the-tap. Lead was not detected in any sample. Copper was detected in 52 samples, none of which exceeded the AL for copper.

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, 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.*





Staying Ahead of Change **Strengthening Water Resilience and Compliance**

From changing climate and increased regulations to emerging contaminants like per- and polyfluoroalkyl substances (PFAS) and microplastics, today's water challenges are complex and evolving. The City of Santa Ana is responding with informed, expert-driven action—combining forward-looking planning, advanced treatment solutions, and strong compliance to protect public health and strengthen water system resilience. This section outlines how those efforts help Santa Ana meet evolving regulations and ensure a reliable water supply for the future.

California's Framework for a Water-Resilient Future

California's water future is becoming less predictable with longer dry spells, shrinking snowpacks, and hotter temperatures. To help communities plan ahead, the state introduced a long-term strategy called Making Water Conservation a California Way of Life. This statewide shift is designed to make water conservation a lasting part of daily life, not just something we think about during droughts. It sets customized water use targets for Urban Retail Water Suppliers—like the City of Santa Ana—not individual households.

What Is Nonfunctional Turf?

Nonfunctional turf refers to decorative grass that is not used for recreation or community activities. This includes narrow strips, ornamental lawns, and grassy areas in front of buildings that serve no functional purpose.

These targets aren't one-size-fits-all, they're based on each agency's unique climate, population, landscape, and infrastructure. Under two state laws passed in 2018—Senate Bill 606 and Assembly Bill 1668—urban water suppliers must calculate and meet an annual Urban Water Use Objective (UWUO). This objective is based on a combination of efficiency standards, including:

- Indoor and outdoor residential water use
- Landscape irrigation on commercial, industrial, and institutional (CII) properties
- Water loss from leaks or system inefficiencies

Once fully implemented, the framework is expected to reduce urban water use by more than 400,000 acre-feet by 2030, helping California better prepare for the long-term impacts of climate change.

Santa Ana's Role and Readiness

Santa Ana is well-positioned to meet these targets. With long-standing investments in water-efficient infrastructure, conservation programs, and its new smart meter program, the City has a strong foundation for compliance and continued leadership in water stewardship. These smart meters will allow residents to monitor their own water use and detect household leaks, while helping the City quickly identify and address leaks in its water distribution system.



Under the new framework, local agencies retain flexibility in how they meet their goals. Strategies may include leak detection, rebates for efficient devices, educational outreach, and rebates for drought-tolerant landscaping—tools already familiar to the Santa Ana community.

In addition to meeting overall water use goals, Santa Ana must also follow new performance measures for CII properties, including tracking usage trends and adopting best practices for indoor and outdoor efficiency. The City is already monitoring irrigation and analyzing patterns through its 480 Dedicated Irrigation Meters (DIMs) installed citywide on CII properties.

The City is also reviewing turf areas throughout its service area in preparation for AB 1572—a separate state law that will prohibit the use of potable water to irrigate nonfunctional turf at CII properties, as well as homeowners association (HOA) common areas, by January 1, 2027. While not part of the UWUO framework, AB 1572 supports the broader shift toward more sustainable landscaping across California.

Why It Matters

California's new framework is about more than meeting numbers, it's about helping communities adapt to the realities of climate change without relying on emergency water restrictions. For Santa Ana, it's an opportunity to strengthen local planning, support smarter water use, and build a more resilient water future for everyone.

By building on its history of conservation and engaging the community, Santa Ana is helping lead the way toward a future where water conservation is part of how we plan, grow, and thrive.



Staying Ahead of Change **Meeting the PFAS Challenge: Ensuring Safer Water**

Santa Ana has been ahead of the curve in addressing PFAS, one of the most persistent and challenging contaminants in drinking water today. Per- and polyfluoroalkyl substances (PFAS) are a group of human-made chemicals found in countless household and industrial products. Because they don't break down easily, PFAS have been detected in water sources across the country, including groundwater here in Orange County.

New Federal and State Standards

In April 2024, the U.S. EPA set new nationwide mandatory limits for six PFAS chemicals in drinking water. For two of the most common ones—PFOA and PFOS—the maximum allowed amount is now 4 parts per trillion (ppt). That's an incredibly small amount—equivalent to one drop of water in 20 Olympic-size swimming pools.

California is taking it a step further. Last year, the state's Office of Environmental Health Hazard Assessment (OEHHA) set public health goals for PFOA and PFOS at even lower levels: 0.007 ppt and 1.0 ppt, respectively. These goals aren't enforceable, but they're based on long-term health research and represent the level at which no harmful health effects are expected over a lifetime of exposure. The Division of Drinking Water is now using these goals, as well as the new federal mandatory limits, to help shape California's own mandatory limits.

As part of this process, state officials are proposing new "Notification" and "Response" Levels—numbers that tell water agencies when they must inform the public or take action. For example, one proposal would cut the Response Level for a PFAS compound called PFHxS in half. A new limit is also being considered for another compound, PFHxA. These proposals are expected to go before the State Water Board for review in 2025, with possible adoption later in the year.

Santa Ana's Proactive Response

Santa Ana has been preparing for this moment for years. In partnership with the Orange County Water District (OCWD), the City brought its first PFAS treatment facility online at Well 40, which now treats and delivers up to 3.5 million gallons of water each day. Construction of wellhead treatment facilities is also underway on three more sites including Wells 31, 38, and 27/28. These projects are scheduled for completion between 2025 and 2027 and will collectively treat up to 15 million gallons per day.

To support long-term water resilience, Santa Ana is also building two centralized PFAS treatment stations—at the John Garthe Reservoir Station and Walnut Reservoir Station—that will treat groundwater pumped from multiple wells. Construction at the Garthe Station could begin as early as 2026, and the design for the new treatment facility at Walnut Station is already underway.

These investments allow the City to meet evolving water safety standards without delay, while also increasing resilience in its groundwater supply. OCWD is covering most of the cost for these treatment systems, significantly easing the financial impact on Santa Ana residents.

Santa Ana's Water Resources Division also works closely with OCWD to test and monitor groundwater through a state-certified laboratory, the first in California approved to detect PFAS. This ongoing partnership helps ensure the City stays ahead of the science and protects public health as new standards emerge.

Residents can learn more about PFAS and water safety by visiting www.ocwd.com/what-we-do/water-quality/pfas or by contacting the City's Water Resources Division directly at WaterInfo@santa-ana.org.

Through early planning, strong partnerships, and smart investments, Santa Ana is meeting the challenge of PFAS head-on, building resilience into every drop.





Staying Ahead of Change Proactively Addressing Microplastics in Our Water

An Emerging Concern

Microplastics have become a growing concern in recent years as researchers continue to detect these tiny particles in nearly every part of the environment—and even in the human body. While scientists are still working to understand the potential health effects, the issue is gaining international attention. California is leading the way in developing new monitoring requirements and testing methods to better understand how microplastics may affect drinking water.

What Are Microplastics?

Microplastics are small plastic particles less than 5 millimeters in size, smaller than a grain of rice. Most microplastics come from the breakdown of larger plastic items like packaging, synthetic fabrics, and household products. But not all microplastics start large. Some are added directly into products, such as tiny exfoliating beads in facial cleansers or glitter in phone cases. Even BPA-free plastic items, like water bottles and food storage containers, can shed microplastic particles over time, especially with repeated use or exposure to heat. These tiny plastics can enter the environment through stormwater runoff, wastewater, or even the air, making them difficult to trace and remove once released.

What's Happening in California

California is the first state in the nation to define what microplastics in drinking water are and to launch a plan for studying them more closely. Under Senate Bill 1422, the State Water Board is requiring large water systems across the state to test for microplastics over a four-year period.

To support this work, state regulators recently hosted workshops on how to properly collect, analyze, and interpret microplastics data. These sessions highlighted just how delicate the testing process is. Even small mistakes during sampling can lead to contamination. The analysis itself is highly specialized and must account for a wide range of factors, like the size, shape, and chemical makeup of each particle.

At the same time, OEHHA is studying the potential health effects of microplastics. This research may lead to a public health goal for safe levels in drinking water.

Santa Ana's Response

While there's still a lot to learn, Santa Ana is preparing for the state's upcoming requirements. The City is closely following the State Water Board's phased testing program and will take part in any required sampling and reporting once those details are finalized.

Because Santa Ana draws most of its drinking water from deep groundwater aquifers, the risk of microplastic contamination is considered lower than in surface water sources. Still, the City remains proactive—committed to working closely with OCWD, MWD, and other regional partners to monitor developments and implement necessary measures to ensure the continued safety and reliability of its drinking water.

Looking Ahead

As the science continues to evolve, Santa Ana is committed to staying ahead of the curve. By participating in regional discussions, staying aligned with state efforts, and updating its practices as new research emerges, the City continues to protect public health and maintain a safe, high-quality water supply for all residents.

5 Ways to Reduce Microplastics at Home

- 1. Choose reusables.** Use refillable bottles, bags, and containers. Choose stainless steel or glass when possible.
- 2. Wash smart.** Wash synthetic clothes less often and use microfiber-catching laundry bags or filters.
- 3. Avoid built-in plastics.** Skip products with microbeads, glitter, or soft plastic coatings.
- 4. Recycle and dispose properly.** Keep plastics out of storm drains and waterways.
- 5. Buy less plastic.** Choose minimal-packaging products or brands with plastic-free alternatives.



Staying Ahead of Change

Advancing Lead and Copper Rule Compliance

In recent years, the U.S. EPA has strengthened regulations to reduce lead and copper in drinking water. The latest updates, known as the Lead and Copper Rule Improvements (LCRI), go beyond previous regulations by requiring the replacement of all lead service lines, not just those that exceed a certain lead level.

As part of this effort, public water systems across the country, including the City of Santa Ana, were required to complete a detailed inventory of all service lines.

The new rule also includes improvements in corrosion control treatment, public education, and sampling in schools and childcare facilities. The goal is to protect public health by identifying and replacing any lead service lines over the next decade.

The City of Santa Ana completed its initial service line inventory ahead of the federal deadline and is pleased to share the update that follows.

Water Service Line Inventory

The City of Santa Ana completed the initial lead service line inventory required by U.S. EPA's Lead and Copper Rule Revisions [LCRR]. The deadline for the initial inventories was October 16, 2024.

Through completing a historical records review and field investigations, the City of Santa Ana has confirmed it has no lead or galvanized service lines in its distribution system.

The City of Santa Ana reviewed all applicable sources of information, including:

- Construction and plumbing codes, permits, and existing records or other documentation that indicates the service line materials;
- Water system records, including distribution system maps and drawings, historical records on each service connection, meter installation records, historical capital improvement or master plans, and standard operating procedures;
- Inspections and records of the distribution system that indicate service line material; and
- Previous service line or meter replacements were conducted.

In addition to reviewing the above sources of information, the City of Santa Ana used a State Water Board approved method to develop a representative list of service lines to conduct field investigations on.

After investigating the subset of service lines, no lead or galvanized requiring replacement service lines were discovered. The City of Santa Ana verified 1,418 service lines, and the service lines were verified as "non-lead." No lead or galvanized requiring replacement service lines were identified.

The City of Santa Ana will continue to document regular updates to service line material information from normal operations, such as service line maintenance or water meter exchanges. For additional information regarding this Water Service Line Inventory process, visit www.santa-ana.org/water-service-line-inventory.

The City of Santa Ana is committed to staying ahead of change—protecting public health, planning for future challenges, and ensuring the long-term reliability of our water system. As new science and regulations continue to emerge, the City will remain focused on delivering safe, high-quality water for all who live, work, and thrive in Santa Ana.





Resilient by Design

Santa Ana's Self-Sufficient Approach to Water Disinfection

Santa Ana's approach to water disinfection isn't just effective—it's resilient by design. At the heart of the City's strategy is a forward-thinking system that generates disinfectant onsite, helping to safeguard public health, maintain reliability, and reduce environmental risk.

Many water agencies still depend on ordering and storing liquid chlorine from outside suppliers, an approach that can leave systems vulnerable to delivery delays, shortages, and safety risks. But Santa Ana does things differently. More than two decades ago, the City invested in a new technology: onsite generation of sodium hypochlorite—a safer, lower-concentration disinfectant made from salt, water, and electricity.

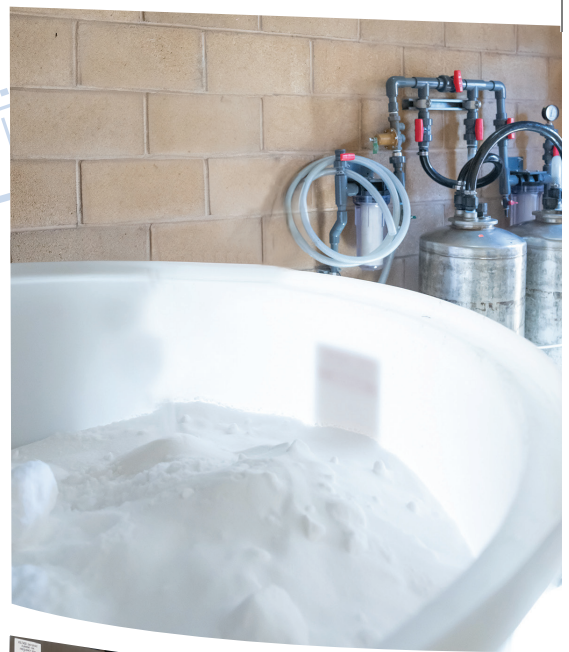
Originally adopted to comply with new regulations phasing out the use of chlorine gas near neighborhoods, the system has since become a well-regarded model of operational independence and long-term planning.

"We've built a system where we know exactly what's going into our water," says Juan Ramirez, Water Services Production Supervisor. With more than 20 years of experience at the City's Water Resources Division, Juan oversees the operations crew responsible for maintaining and repairing the City's water infrastructure. "It's consistent, reliable, and designed to adapt."

A Safer, Smarter Process

Santa Ana's chlorine generation system begins with ultra-pure salt—99.99% sodium chloride—mixed with water to create a brine solution. This solution is pumped through specially coated electrolytic cells and powered by a rectifier that converts electrical current into a form needed for the reaction. The result is a safe, dilute sodium hypochlorite solution with a chlorine concentration of just 0.8%.

That concentration is key. Typical household bleach contains 5% to 6% chlorine. Pool-grade chlorine can exceed 12%. But Santa Ana's solution, produced and used fresh on-site, stays well below 1%, classifying it as non-hazardous and reducing risks to both operators and the environment.



The City's system includes many onsite generation units, each feeding chlorine into the water system as needed. After being produced, the disinfectant is stored in holding tanks and injected using flow-paced dosing pumps—automated systems that adjust chlorine levels in real time based on water demand and flow conditions.





Built-In Resilience

Santa Ana's infrastructure includes 10 reservoirs, multiple wellheads, and imported water connections. Depending on the water's source, whether pumped from deep groundwater wells or delivered from regional suppliers, chlorine may be added at various stages to ensure proper disinfection.

In recent years, the City has added Residual Control Systems (RCS) at key points in its distribution network. These automated units continuously monitor chlorine levels and adjust dosing to maintain safe, consistent levels. This highly controlled process ensures Santa Ana maintains a target chlorine residual between 0.6 and 1.0 parts per million (ppm)—well below the federal limit of 4.0 ppm, yet fully protective of public health.

This built-in resilience became especially critical in 2023, when a nationwide chlorine shortage left many water agencies without the essential disinfectant. Some were forced to ration deliveries or change operations. Santa Ana, by contrast, never missed a beat and was unaffected by the nationwide chlorine shortage. "We had full control of the process," Ramirez recalls. "We knew what we were producing and could respond quickly."

Keeping our residuals at optimal levels is a sign of how well our system functions.

A Model of Operational Excellence

In addition to its core treatment process, the City's disinfection program is supported by a network of monitoring systems, alarms, and backup protocols to ensure consistency and safety.

Every dose is precisely calibrated. Every batch is freshly produced. And because the City isn't reliant on third-party suppliers to purchase chlorine, quality doesn't vary from shipment to shipment.

This commitment to quality is also reflected in the City's decision to invest in the cleanest, most refined salt available for use in its generators, minimizing impurities that could affect equipment or water quality over time.

Looking Ahead

Santa Ana's disinfection program is constantly evolving. The City continues to explore opportunities to expand residual monitoring and adopt new technologies that could make disinfection even more responsive in the years ahead.

Why It Matters

Clean, safe water doesn't happen by accident. It takes careful design, dedicated staff, and a commitment to innovation. Santa Ana's self-sufficient approach to water disinfection ensures not only regulatory compliance but also long-term resilience, offering protection against supply disruptions, environmental risk, and changing regulatory requirements.

For residents, the benefit is simple: water they can count on every time they turn on the tap.





Investing in Resilience

Capital Improvements in Action

Santa Ana's water system is built on more than pipelines and pumps—it's built on planning, public trust, and proactive investment. Through a wide range of Capital Improvement Projects (CIPs), the City continues to modernize infrastructure, strengthen water quality, reduce dependence on imported supplies, and prepare for the challenges ahead. Each project reflects the City's long-term commitment to resilience, sustainability, and exceptional service.

Smart Meters, Smarter Service

Santa Ana has now completed installation of residential smart meters city-wide, accounting for 99% of all water service connections. This marks a major milestone in the City's \$30 million Advanced Metering Infrastructure (AMI) initiative.

The remaining phase, focused on larger meters serving multi-family, commercial, and industrial properties, is underway and expected to continue through 2028. These upgrades often require structural modifications, such as vault replacements, valve assessments, and customized fittings.

The benefits of AMI technology are already reaching customers:

- **Water Conservation:** Customers can track their daily water use online, set conservation goals, and make informed decisions to stay within rate tiers, helping them manage their budget and avoid costly surprises.
- **Leak Detection:** Hourly readings alert customers to unexpected spikes in usage, often indicating a leak. This allows residents to respond quickly and avoid property damage or high bills.
- **Improved Customer Service:** With 24/7 access to water data, residents can identify and address issues immediately, without waiting for a bi-monthly bill. This transparency also supports faster, more responsive service from City staff.

On the City's side, AMI provides continuous monitoring of system pressure and temperature, enabling staff to detect anomalies, respond to issues faster, and reduce the likelihood of major disruptions.

Strengthening Local Water Supply

Santa Ana continues to invest in new water sources and well rehabilitations—not only to reduce dependence on imported water, but to build a more resilient, flexible, and sustainable water system. These projects help expand local capacity, support drought preparedness, and ensure the City can meet peak demand during emergencies. They also help manage long-term costs while maintaining the City's high standards for water quality and safety.

- **Well 29—Upgrades Nearing Completion:** Rehabilitation of Well 29, located near the Walnut Pump Station on Flower Street, is slated for completion by fall 2025. In addition to a new pump, motor, and well pipe header components, the \$8 million project includes a new enclosed building to house its mechanical, electrical, and control systems, along with landscaping, irrigation, and a digital community message board, a feature designed to benefit nearby schools and residents. Once operational, Well 29 will deliver up to 2,500 gallons per minute, improving system reliability and operational flexibility.

- **Well 32—Bringing Capacity Back Online:** The rehabilitation of Well 32 continues, with completion expected in fall 2025. The \$16 million project includes a new above-ground well building with an electrical room, a new pump and motor, and upgraded mechanical, electrical, and control systems. A 3,250-foot water conveyance pipeline connecting the well to the Garthe Reservoir site, has already been completed. Once fully operational, Well 32 is expected to produce up to 2,500 gallons per minute.

- **Washington Well—Santa Ana's First New Potable Well in 20 Years:** This past year, the City completed drilling for the Washington Well—its first new potable water well in more than two decades. The equipping phase is currently in design, with construction expected to begin in 2026. Planned improvements include a new well building, disinfection and electrical systems, and a PFAS treatment facility. The project also includes construction of approximately 1,700 feet of water main to connect the new well to the City's upper zone. The project is scheduled for completion in 2027.

- **Flower Well—Planning for the Future:** The City is currently evaluating the feasibility of a new well near Walnut Station on Flower Street. As part of this process, staff analyze site conditions, zoning regulations, hydrogeological data, and potential impacts on the groundwater basin and nearby wells. This thorough approach ensures compliance with regulatory standards and supports Santa Ana's goal of long term supply resilience.





Investing in Resilience Capital Improvements in Action *(cont.)*

PFAS Treatment Projects

Our partnership with OCWD provides critical resources to address the challenges posed by PFAS. OCWD is funding the design and construction of PFAS treatment facilities and providing support to PFAS treatment facility operations and maintenance costs. In 2023, the Well 40 treatment facility at Maybury Park was brought online and has been treating up to 3.5 million gallons of water per day.

- **Well 38:** Located on the northern border of the City's service area, the Well 38 PFAS treatment facility is nearing completion and is expected to be online in fall 2025. This facility is a critical supply source for the City's upper zone and will be capable of delivering up to 3.5 million gallons of water per day.
- **Well 31:** Located near the Santa Ana Zoo, construction of the Well 31 PFAS treatment facility began in 2024 and is expected to be completed in 2026. When completed, the facility will be capable of delivering up to 3.5 million gallons of water per day.
- **Wells 27 & 28:** The Wells 27 & 28 PFAS treatment project is the City's first centralized PFAS treatment facility, combining supply from these two groundwater wells, to be treated at a single facility in Santiago Park. Construction began in late 2024 and is expected to be completed in 2027. When finished, the facility will be capable of delivering up to 8 million gallons of water per day.
- **Garthe:** The design of a large centralized PFAS treatment facility at the John Garthe Reservoir is nearing completion, with construction expected to begin next year. Once built, the facility will be capable of treating up to 18 million gallons of water per day, supplied from five local groundwater wells.

Water and Sewer System Improvements

As part of the City's Capital Improvement Plan (CIP), Santa Ana continues to invest in the replacement of aging water and sewer mains. These projects are prioritized based on system condition, age, and projected population growth, and are designed to improve reliability, increase capacity, and reduce long-term maintenance needs.

Each year, the City replaces approximately five miles of underground pipeline. Where possible, this work is coordinated with street repaving and other public works improvements to reduce disruption and optimize construction timelines. Many projects include upsizing sewer mains and transitioning to modern materials such as PVC, which offers greater durability, easier installation, and greater resistance to root intrusion and corrosion.

In the past year alone, over 9,900 linear feet of water mains and 660 linear feet of sewer mains were completed, with more projects currently underway or in design.

Recently Completed and Active Projects

- **Warner Avenue:** Completed in 2024, this project involved the construction of 4,000 linear feet of water main to improve reliability and replace aging infrastructure.
- **Ritchey Street:** In coordination with Caltrans improvements to the SR-55 freeway, the City completed the installation of approximately 1,700 linear feet of new water main along the freeway corridor in spring 2025.
- **Neighborhood Water and Sewer Improvements:** Also completed in spring 2025, this project extended water and sewer services to the neighborhood northeast of 17th Street and Tustin Avenue. Work included 2,250 linear feet of new water main with service connections and meters, and 660 linear feet of sewer main with laterals and manholes.
- **Bristol Street Water Main Improvements:** Currently underway, this project includes installation of 5,300 linear feet of new water main along two segments: Civic Center Drive to Washington Avenue, and Warner Avenue to St. Andrew Place. The work is part of the Bristol Street Corridor Improvements project, which also includes street widening, new storm drains, landscaped medians, sidewalks, and a protected bike lane.





Investing in Resilience Capital Improvements in Action *(cont.)*

Community Collaboration: Building Trust Alongside Infrastructure

Santa Ana's infrastructure projects are designed with both technical performance and public impact in mind. Throughout the feasibility and planning stages, the Water Resources Division gathers feedback on construction impacts—like traffic, noise, and aesthetics—and adjusts plans accordingly. Recent efforts include sound attenuation during drilling, refreshed landscaping along Memory Lane, and signage improvements near project sites.

Prior to construction, flyers are placed on doors to notify residents in advance, and QR codes on signage link directly to additional information and contact details. The Division also provides regular updates on road closures and project progress, and staff remain available to answer questions and respond to concerns.

Throughout the construction phase, the Water Resources Division makes every effort to minimize disruption in the community. Work is scheduled during hours that are expected to be less impactful for residents. Residents have access to their properties at all times, and water service is never shut off for more than four hours. Crews sweep the roadways at the end of each workday and keep construction equipment off the street by staging it in designated areas.

This customer-focused approach helps reduce inconvenience and keeps residents engaged throughout the process. After completion of Well 32, for example, residents were invited to an onsite “show and tell” event where they toured the new building and engaged with City staff to learn how the project benefits their neighborhood.

Looking Ahead

The City's long-range infrastructure plan also includes several projects currently in design or scheduled for construction in the coming years. These future investments continue to build on completed work and support Santa Ana's goal of a resilient, efficient, and modern water and sewer system.

- **Washington Square:** Design is underway to upgrade approximately 3,900 linear feet of sewer main.
- **Wright Street:** This project will upgrade approximately 5,600 linear feet of sewer main.
- **Hazard Avenue and Memorial Neighborhood Sewer Improvements:** This project will replace aging sewer infrastructure and extend service to properties currently using septic systems. It is currently in the design phase, with construction expected to be completed in 2026.
- **Water Meter Vault Replacement Program:** The City is upgrading water meter vaults across Santa Ana to improve access, safety, and long-term maintenance while replacing outdated components.

These forward-looking improvements, along with the development of new water sources and future treatment facilities, underscore the City's ongoing commitment to building infrastructure that meets both current and future needs.



Throughout the construction phase, the Water Resources Division makes every effort to minimize disruption in the community.



Investing in Resilience Capital Improvements in Action *(cont.)*

Funding with Impact

In the past year, Santa Ana secured over \$10 million in external funding and issued a \$40 million bond to help advance significant water infrastructure improvements without placing additional financial burden on our residents. Recent funding highlights include:

- A \$40 million Water Revenue Bond issued in June 2024 to fund long-term system upgrades and high-priority capital improvements.
- A \$1.8 million federal grant from the U.S. Bureau of Reclamation to relocate and upgrade a key pressure reducing station, which will help manage incoming water pressure, protect the system, and prevent service disruptions.
- A \$2 million federal loan to cover PFAS treatment project construction costs.
- A \$10 million low interest loan from OCWD for the Washington Well project.

These funding sources support long-term financial stability and allow the City to move forward with ambitious, community-serving projects.



Built for Action: Santa Ana's New In-House Construction Team

As Santa Ana continues to modernize its water and sewer infrastructure, the City is also transforming how that work gets done. In 2024, the Santa Ana City Council approved the creation of a new Construction Services Section within the Water Resources Division, an in-house crew dedicated to delivering capital improvements faster, more efficiently, and with greater accountability.

For years, much of this work—installing pipelines, fire hydrants, valves, and other core infrastructure—depended on outside contractors. Now, with a 13-member team of Water Services Workers and Equipment Operators, the City will be able to perform this work internally, saving time and long-term costs. These skilled team members will focus on:

- New water and wastewater pipeline construction
- Pipeline rehabilitation and replacement
- Leak detection and emergency response
- Infrastructure inspections and ongoing maintenance

The addition of this team eliminates the delays and administrative steps associated with bidding, awarding, and managing external contracts for routine projects. It also gives the City greater flexibility to respond to system needs, tackle small-scale construction priorities, and assist with street and sidewalk repairs when appropriate.

"This has been a key initiative—to build internal capacity that gives us more flexibility, better cost control, and stronger accountability to our community. Once in place, this team will help us advance capital projects more strategically and serve residents with greater responsiveness," says Cesar E. Barrera, P.E., Deputy Public Works Director / Water Resources Manager, City of Santa Ana.

Importantly, the new Construction Services Section operates with a net-zero budget impact. Water-related projects are already funded through existing resources. When working on non-water-related needs, the crew's time and materials will be charged to the appropriate fund, ensuring full compliance with funding regulations.

This new internal capacity marks a pivotal shift in how Santa Ana delivers infrastructure improvements. It reflects the City's commitment to building smarter, operating more nimbly, and investing in the kind of workforce that can meet both today's needs and tomorrow's challenges.





Doing Their Part: Young Artists Inspire Water Conservation

Last spring, students across Santa Ana put their creativity to work for water conservation—and more than 400 young artists rose to the challenge. The 2025 Youth Water Poster Contest invited students ages 5 to 18 to create original artwork reflecting the theme “Everyone Has a Role – Save Water.”

The message was simple but powerful: water conservation depends on all of us, and even small actions can make a difference. From colorful illustrations of smart water habits at home to scenes of sustainable landscaping, students shared how they—and their communities—can protect this vital resource.

A total of 424 posters were submitted and reviewed by a panel of local judges:

- **Anthony Ornelas**, artist and Arts & Culture Office intern for the City of Santa Ana
- **Margo Alleman**, artist, welder, and educator
- **Cheryl Carter**, executive director and founder of Cedar Tree Music and Performance

interpretation, originality, effort, grammar, clarity of visual and written message, and alignment with the year’s theme. Poster artwork ranged from vibrant and heartfelt to bold and inventive, each one offering a unique take on what it means to save water.

Twelve winners—one Grand Prize Winner and two Finalists in each of four age categories—were honored during the Poster Contest Recognition Ceremony on May 20, 2025, in the Council Chamber at Santa Ana City Hall.

City Councilmembers personally presented the students with their awards and certificates and winners received their prizes, which included MacBook Airs, PlayStation 5s, and gift certificates.

The winning posters will be exhibited at City Hall for one month and featured in City publications and events throughout the year.

**A special thank you to
Tram Le for thoughtfully
selecting our judges each year!**



2025 Winners

AGES 5-8

- Grand Prize** **Luella Luna Reyes**
3rd Grade
- Finalist** **Mateo Aguilera**
2nd Grade
- Finalist** **Arturo Arellano**
2nd Grade

AGES 9-12

- Grand Prize** **Joaquin Saldaña**
4th Grade
- Finalist** **Angel Isaac Franco**
5th Grade
- Finalist** **Emily Santacruz**
5th Grade

AGES 13-14

- Grand Prize** **Deriya Dale**
7th Grade
- Finalist** **Yazmin Osorio**
8th Grade
- Finalist** **Vanessa Orozco**
8th Grade

AGES 15-18

- Grand Prize** **Alba Martinez**
11th Grade
- Finalist** **Thy Do**
10th Grade
- Finalist** **Isel Leyva**
12th Grade



Posters were scored based on artistic



SAUSD Teachers Help Bring the Message to Life

The City of Santa Ana extends its sincere appreciation to SAUSD teachers who encouraged student participation in this year's Youth Water Poster Contest. Many teachers integrated the contest into their spring lesson plans—some even as a full classroom project—using the theme to spark meaningful conversations about sustainability, water use, and civic engagement.

To thank participating educators, the Water Resources Division held a Teacher Drawing with an exciting prize.

Congratulations to our 2025 winner, **Tea Meskal**, Energy & the Environment teacher at Vista Heritage Global Academy.

Ms. Meskal, in her first year participating, said she saw the contest as a way to connect her 7th-grade students with real-world environmental challenges. "I wanted them to understand their role in protecting water resources—not just locally, but globally," she shared.



Teachers, visit santaanawater.org to learn how to bring the contest into your classroom and give your students a chance to shine—while making a real impact on water conservation in our community.

CITY OF SANTA ANA

Youth Water Poster Contest

The City of Santa Ana's Water Resources Division proudly presents the 10th Annual Youth Water Poster Contest! This exciting competition is open to youth ages 5–18 who reside or attend school in Santa Ana. It's your chance to showcase your artistic talents while championing the importance of water conservation. Plus, you could win one of our amazing prizes, including PS5s and MacBook Airs!

Don't miss out—submit your entry by 4 p.m. on March 21, 2025.

2024 Winners

2025 CONTEST

For Teachers

We encourage you to utilize this educational activity in your classroom curriculum with students. Please [download the Teacher's Packet](#) here for all the information needed to instruct students on the contest rules and guidelines.

Also, our [2025 Activity Book](#) contains fun activities you can share with your students to make the contest not only fun but also educational.

Teachers who are interested in participating can email us at conservewater@santa-ana.org to order materials and free activity books for their classroom as well as parental forms that can be sent home with students.

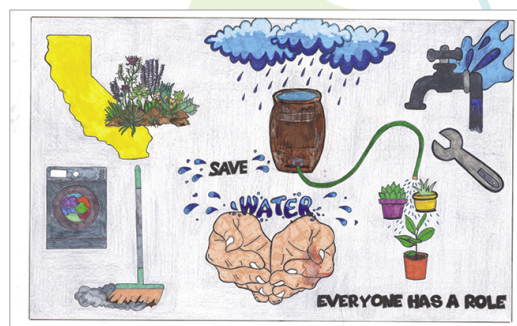


contest

WINNERS 2025



Luella Luna Reyes



Joaquin Saldaña



Mateo Aguilera



Angel Isaac Franco

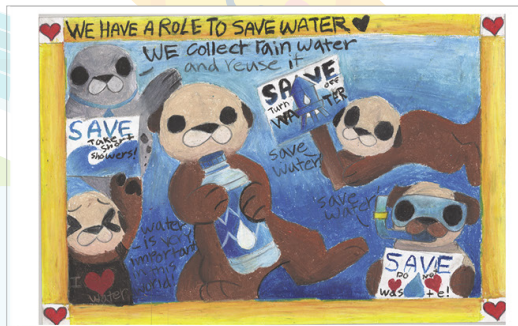


Arturo Arellano



Emily Santacruz

Thank you to every student who took part in this year's contest. And a special thank-you to our judges for generously sharing their time and expertise in support of this important initiative.



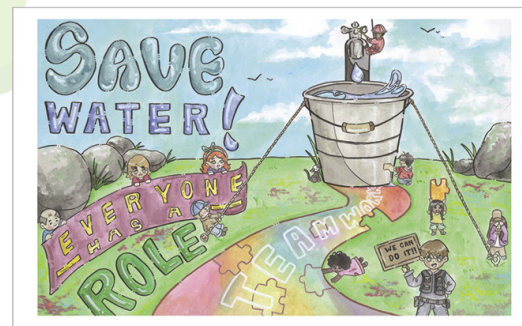
Deriya Dale



Alba Martinez



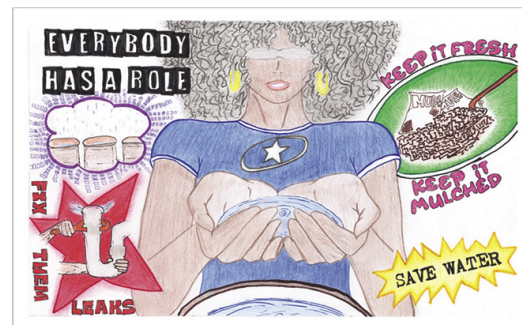
Yazmin Osorio



Thy Do



Vanessa Orozco



Isel Leyva



Santa Ana In the Community

4th of July Celebration at Centennial Park

Santa Ana's Water Resources Division brought both pride and hydration to this year's Independence Day celebration at Centennial Park. The team proudly showcased the City's Berkeley Springs gold medal for best-tasting tap water, emphasizing Santa Ana's continued commitment to quality. The City's colorful Mobile Hydration Station was on hand to provide chilled, great-tasting tap water to the crowd through bottle-filling taps—including one for pets. Staff also distributed conservation materials, shared tips on sustainable practices, and handed out seed packs to encourage water-wise gardening at home. Families picnicked, enjoyed live music, played in the kid zone, and sampled festive treats from local food vendors. Four-legged friends showed off their red-white-and-blue attire in the crowd-favorite Patriotic Pup competition. As night fell, a dazzling 20-minute firework display lit up the sky.

Chicano Heritage Festival

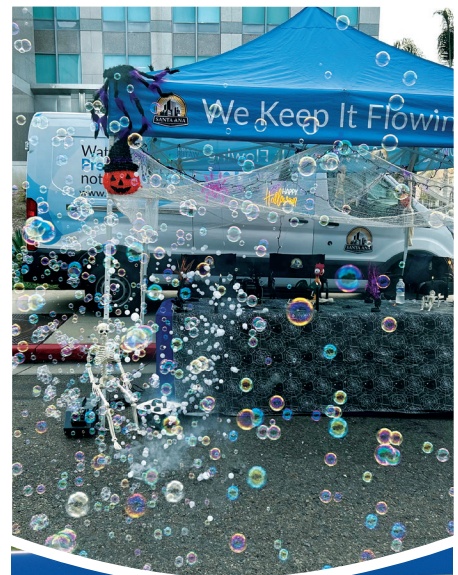
Santa Ana's vibrant Mexican American heritage was on full display during the third annual Chicano Heritage Festival on August 11, 2024, at Centennial Park. The Water Resources Division joined the festivities with its Mobile Hydration Station and outreach booth, where staff distributed reusable buckets, water balloons, and Berkeley Springs tumblers—celebrating the City's award-winning tap water. Visitors also received seed starter packs and educational materials on water conservation and sustainable landscaping. Festivalgoers brought lawn chairs and blankets to enjoy an exciting musical lineup including Lakeside, Soto Band, The McCharmlys, Diamond Ortiz, Funk Freaks, and Delfonics, while others explored food vendors, arts and cultural exhibits. Kids enjoyed carnival rides, and local car aficionados showed off their "steel steeds" at the car show and cruise.

Fiestas Patrias

Orange County's Latin American communities gathered to celebrate Mexican independence at Santa Ana's two-day Fiestas Patrias festival on September 13 and 14, 2024. Held along 4th Street in the city's historic district, the celebration featured a vibrant street fair, parade, live music, food vendors, carnival rides, cultural exhibitions, and more. Headline performances included Larry Hernandez, Mariachi Los Reyes, Ezequiel Peña, and Marisol Terrazas. The Water Resources Division helped keep the crowd refreshed with its Mobile Hydration Station, offering Santa Ana's award-winning water. Staff also handed out conservation materials and spoke with attendees about careers in water—highlighting opportunities to serve the community as part of Santa Ana's Water Resources team.

SAPD Trunk or Treat

Santa Ana's Water Resources Division joined the Santa Ana Police Department's annual Trunk or Treat on October 17, 2024, bringing spooky fun to Civic Center Plaza. At its outreach booth, the Water Resources team handed out candy to costume-clad trick-or-treaters and shared spooky tales about ghostly water leaks and the disappearing urban canopy! Over 3,500 people enjoyed the festivities, which included delegates from Santa Ana's sister city, Sahuayo, and players from the Anaheim Ducks. Local businesses served up treats and showcased their goods while guests danced the Monster Mash to the beats of a live DJ.



Santa Ana Tet (Lunar New Year) Festival

Santa Ana rang in the Year of the Snake with its annual Tết Lunar New Year Festival on January 25, 2025. With cultural vendors, vibrant exhibits, and colorful decorations, attendees immersed themselves in Vietnamese traditions at Centennial Park. The Water Resources Division's outreach booth was decorated with lanterns, yellow flowers, and hanging dragons, where staff shared conservation materials and Santa Ana's award-winning water. Entertainment included traditional dancing, live performances, and a Shaolin martial arts demonstration. A breathtaking fireworks show, kicked off by a Lion and Dragon dance from Qing Wei, brought the celebration to a close.

Children's Water Education Festival

Each year, Santa Ana's Water Resources Division proudly participates in OCWD's annual Children's Water Education Festival—one of the largest educational events of its kind in the region. Held this year on April 23–24, 2025, at Oak Canyon Park in the City of Orange, the free festival invites fourth and fifth graders from across Orange County to learn about local water issues and environmental stewardship through hands-on activities. Our team provided each student with a gift package that included an activity booklet, sunglasses, water-saving stickers, a reusable tumbler, and a lunch bag. Students also received interactive conservation wheel cards to explore ways they can help save water at home and in their communities. Since its inception, the festival has reached more than 160,000 students, nurturing the next generation of water-conscious citizens.

Open Garden Day

Santa Ana Water Resources Division brought its Mobile Hydration Station to the neighborhoods of West Floral Park and Fisher Park to celebrate Open Garden Day on May 10, 2025. This annual walking festival invites the public to explore 10 unique residential landscapes that highlight sustainable gardening practices. The event inspires, delights, and educates the community on water-friendly approaches that support conservation and beauty. In addition to serving up the City's award-winning tap water, Water Resources staff shared practical materials on water-wise gardening and drought-savvy tips for keeping yards vibrant, welcoming, and pollinator-friendly. Expert talks, plein air artists, live music, and a classic car showcase brought the day to life, while guests enjoyed local treats and learned how to bring the garden to the brunch table.





Santa Ana In the Community

Line-Up of Events

Connecting with the community is central to the mission of Santa Ana's Water Resources Division. Through year-round outreach, we share valuable information about drinking water quality, promote water-saving practices, and highlight rebate programs and initiatives that support a more resilient water future. Whether at neighborhood festivals or citywide celebrations, we aim to empower residents with tools and knowledge to help make every drop count.

We invite you to visit our outreach booth at the many events and festivals we participate in throughout the year. Our friendly staff are eager to answer your questions and provide resources to help you become more water-savvy. So, pull up a chair and grab a glass of Santa Ana's award-winning water. And don't forget to pick up a few giveaways while you're there!



Event	Date	Time	Location
July			
Fourth of July Celebration	Friday, July 4th	2:00 PM - 10:00 PM	Centennial Park
Movies in the Park Lilo & Stitch (2002)	Friday, July 11th	Movies begin at dusk	Carl Thornton Park
Movies in the Park Toy Story	Friday, July 18th	Movies begin at dusk	Memorial Park
Movies in the Park Madagascar	Friday, July 25th	Movies begin at dusk	Santa Ana Zoo at Prentice Park
August			
Santa Ana Elk's Lodge Annual Car Show	Sunday, August 3rd	10:00 AM - 3:00 PM	Santa Ana Elk's Lodge
Mayor Valerie Amezcuea's 2nd Annual Back-to-School Resource Fair	Sunday, August 10th	9:00 AM to 1:00 PM	Santa Ana Elk's Lodge
Communication Linkage Forum	Thursday, August 28th	5:00 PM - 8:30 PM	Santa Ana Police Department Community Room



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)

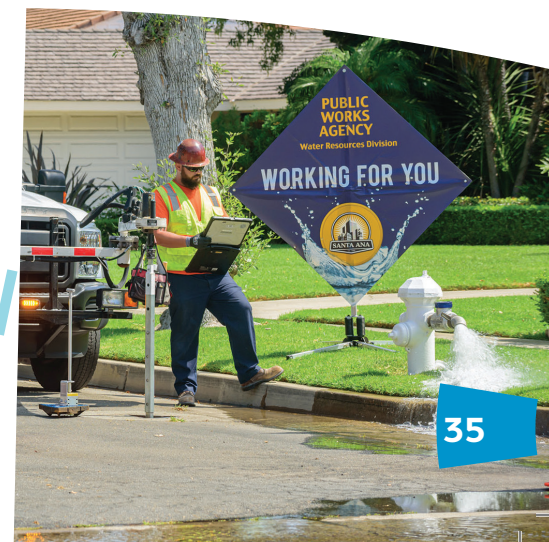
Other Helpful Numbers

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



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www.facebook.com/CityofSantaAna/



www.santa-ana.org



www.instagram.com/cityofsantaana/



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.