2026 WATER QUALITY REPORT

Reporting Year 2025

Through comprehensive water quality compliance testing programs, your drinking water is monitored from source to tap to meet all federal and state drinking water regulatory requirements.

Santa Margarita Water District

Your 2026 Water Quality Report

Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers drinking water quality testing and reporting for 2025.** Santa Margarita Water District (SMWD) vigilantly safeguards its water supply, and as in years past, the water delivered to your home meets or surpasses the quality standards required by federal and state regulatory agencies. The U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW) are the agencies responsible for establishing and enforcing drinking water quality standards.

The Irvine Ranch Water District (IRWD) and Metropolitan Water District of Southern California (MWDSC) supply treated, imported surface water to SMWD and test for unregulated chemicals in our water supply. Unregulated chemical monitoring helps U.S. EPA and DDW determine where certain chemicals occur and whether new standards need to be established for those chemicals to protect public health.

Through drinking water quality testing programs carried out by IRWD and MWDSC for treated surface water and the SMWD for the distribution system, your drinking water is constantly monitored from source to tap for regulated and unregulated constituents. In most cases, SMWD goes beyond what is required by more frequent testing on chemicals that may have known health risks but do not have drinking water standards. 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 more than a year old, is representative.

Sources of Supply

Your drinking water consists of imported treated surface water from MWDSC and treated surface water from IRWD's Baker Water Treatment Plant, which uses surface water from both MWDSC and Santiago Reservoir (Irvine Lake). MWDSC's imported water sources are the Colorado River and the State Water Project, which draws water from the Sacramento–San Joaquin River Delta.

Cross Connections

In cooperation with the State Water Resources Control Board Division of Drinking Water, SMWD's major goal is to ensure the distribution of a reliable potable water supply to all domestic water users. In order for the District to achieve this goal, a Cross-Connection Control Management Plan (CCCMP) has been developed with an effective date of July 1, 2025. The District's CCCMP was developed pursuant to the requirements set forth in the Cross-Connection Control Policy Handbook (CCCPH) which replaced the State of California Administrative Code Title 17, Sections §7583 through §7605 and applies to all State of California Public Water Systems, as defined in California's Health and Safety Code (CHSC, section 116275(h)).

Learn More About Your Water's Quality

For information about this report, or your water quality in general, please contact Customer Care at (949) 459-6420 or CustomerCare@smwd.com. SMWD has several board meetings each month. The monthly board meeting schedule is available online at smwd.com/meetings. Please feel free to participate in these meetings.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline, (800) 426-4791.

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

Este informe contiene información importante sobre su agua potable. Traducirlo, o hablar con alguien que lo entienda.

Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of 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 from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- 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 by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants that can be naturally occurring or the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. EPA and SWRCB 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.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline, (800) 426-4791.

About Lead in Tap Water

Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Santa Margarita Water District is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Santa Margarita Water District at CustomerCare@smwd.com or call (949) 459-6420. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

Lead Service Line Inventory

SMWD's lead and copper service line inventory can be found at smwd.com/553/Lead-FAQ.

Chloramines

Imported and locally produced drinking water is treated with chloramines, a combination of chlorine and ammonia, as a disinfectant. Chloramines effectively eliminate bacteria and other microorganisms that may cause disease. Compared to chlorine alone, chloramines last longer in the distribution system, produce fewer disinfection by-products, and have little to no odor when used properly.

Precautions

Kidney dialysis patients: Individuals using kidney dialysis machines should consult their health-care provider regarding appropriate water treatment.

Fish and aquatic life: Chloramines are toxic to fish and other aquatic organisms. Customers maintaining fish ponds, tanks, or aquariums should adjust water treatment methods accordingly.

For more information, visit epa.gov/dwreginfo/chloramines-drinking-water.

Your Water: Always Available, Always Assured

The Diemer Water Treatment Plant, located in the hills above Yorba Linda, processes up to 520 million gallons of clean water per day—enough to fill the Rose Bowl every four hours. The water is a blend from the Colorado River Aqueduct and the State Water Project. At 212 acres, it's one of the largest water treatment plants in the U.S. It provides nearly half of Orange County's total water supply. Water flowing from Diemer meets or surpasses all state and federal regulations and it is kept safe from the treatment plant to your tap by constant testing throughout the distribution network. This constant surveillance ensures your drinking water stays within the requirements mandated by the federal Safe Drinking Water Act.

Water Conservation: Making Every Drop Count

Water is a limited natural resource, and using it efficiently is essential in both wet and dry years. Outdoor watering makes up about 60 percent of home water use, making it the biggest opportunity for savings.

Start Outdoors: Use Water Wisely in Your Yard

- Choose water-wise plants and drought-tolerant landscaping.
- Adjust sprinklers to avoid watering sidewalks and streets.
- Water in the early morning or late evening to reduce evaporation.
- Fix leaks in irrigation systems—a small leak can waste thousands of gallons per year.
- Use mulch to retain moisture and keep plants healthy.
- Visit smwd.com/179/Rebate-Programs for more landscaping ideas and rebates.

Indoor Water-Saving Tips

- Take shorter showers—a five-minute shower uses much less water than a bath.
- Turn off the tap while brushing your teeth, shaving, or washing dishes.
- Fix leaks—a dripping faucet or running toilet can waste thousands of gallons per year.
- Run dishwashers and washing machines only when full to save up to 1,000 gallons per month.
- Keep a pitcher of drinking water in the refrigerator to avoid running the tap for cold water.

Monitor and Manage Your Water Use

Many cities offer online water usage tracking to help residents monitor their water consumption in real time. By identifying leaks and adjusting usage habits, homeowners can save both water and money.

Why Conservation Matters

Southern California's arid climate and reliance on imported water make conservation essential. Water is transported hundreds of miles through aqueducts from the Colorado River and Northern California, with high costs for pumping and treatment.

Small Actions, Big Impact

By making small changes in daily habits and using water more efficiently, we can protect this vital resource for future generations.

To learn more about Water Conservation & Rebate Information: smwd.com/conservation.

Disinfectants and Disinfection Byproducts

Disinfection of drinking water was one of the major public health advances in the 20th century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of drinking water treatment today.

Water imported from IRWD and MWDSC contain chloramines, a combination of chlorine and ammonia, as a drinking water disinfectant. Chloramines are effective killers of bacteria and other micro organisms that may cause diseases.

Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source (surface water treatment plant). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home.

However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the USEPA to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average. Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum contaminant level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water.

Stage 2 of the regulation was finalized by USEPA in 2006, which further controls allowable levels of DBPs in drinking water without compromising disinfection itself. A required distribution system evaluation was completed in 2008 and a Stage 2 monitoring plan has been approved by DDW. Full Stage 2 compliance began in 2012. Your drinking water complies with the Stage 2 Disinfectants / Disinfection Byproducts Rule.

Chloramines form less disinfectant by-products. People who use dialysis machines may want to take special precautions and consult their physician for appropriate type of water treatment. Customers who maintain fish ponds, tanks or aquaria should also make necessary adjustments in water quality treatment, as these disinfectants are toxic to fish.

2025 Santa Margarita Water District Drinking Water Quality

2025 SANTA MARGARITA WATER DISTRICT DISTRIBUTION SYSTEM WATER QUALITY

	MCL (MRDL/ MRDLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION	TYPICAL SOURCE OF CONTAMINANT
Disinfection Byproducts					
Chlorine Residual (ppm)	(4 / 4)	1.83	1.61 - 1.99	No	Disinfectant Added for Treatment
Haloacetic Acids (ppb)	60	8	4.1 - 10	No	Byproducts of Chlorine Disinfection
Total Trihalomethanes (ppb)	80	32	20 - 37	No	Byproducts of Chlorine Disinfection
Aesthetic Quality					
Color (color units)	15*	1	1	No	Erosion of Natural Deposits
Odor (threshold odor number)	3*	1	1	No	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	926	445 - 1,102	No	Erosion of Natural Deposits
Turbidity (NTU)	5*	0.07	0.01 - 0.50	No	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	614	510 - 680	No	Erosion of Natural Deposits
Unregulated Chemicals - Tested in 2025					
Alkalinity, total as CaCO3 (ppm)	Not Regulated	113	98 - 130	N/A	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO3 (ppm)	Not Regulated	256	210 - 300	N/A	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	15	12.3 - 17.5	N/A	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	7.59	6.93 - 8.52	N/A	Hydrogen Ion Concentration
Sodium (ppm)	Not Regulated	95	83 - 110	N/A	Salt Present in Water; Naturally Occuring

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; forty-three locations are tested monthly for color, odor, and turbidity, and weekly for coliform bacteria. MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal;
*Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

MICROBIOLOGICAL	MCL	MCLG	HIGHEST NUMBER OF DETECTIONS	NO. OF MONTHS IN VIOLATION	TYPICAL SOURCE OF BACTERIA
E. coli	(a)	0	0	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli.*

LEAD AND COPPER ACTION LEVELS AT RESIDENTIAL TAPS

	ACTION LEVEL (AL)	PUBLIC HEALTH GOAL	90TH PERCENTILE VALUE	RANGE OF DETECTIONS	SITES EXCEEDING AL / NUMBER OF SITES	AL VIOLATION?	TYPICAL SOURCE OF CONTAMINANT
Copper (ppm)	1.3	0.3	0.079	ND - 0.16	0 / 52	No	Corrosion of Household Plumbing
Lead (ppb)	15	0.2	ND	ND	0 / 52	No	Corrosion of Household Plumbing

Every three years, at least 50 residences are tested for lead and copper at-the tap. Santa Margarita Water District tested 52 homes in the most recent set of samples collected in 2024. Lead was not detected in any sample. Copper was detected in 15 samples; none exceeded the Action Level (AL). A regulatory action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

2025 IRVINE RANCH WATER DISTRICT BAKER WATER TREATMENT PLANT

CHEMICAL	MCL	PHG	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION?	TYPICAL SOURCE OF CHEMICAL
Radiologicals - Tested in 2025						
Uranium (pCi/L)	20	0.43	1.9	1.9	No	Erosion of Natural Deposits
Inorganic Chemicals - Tested in 2025						
Arsenic (ppb)	10	0.004	ND	ND - 2.2	No	Erosion of Natural Deposits
Barium (ppm)	1	2	0.129	0.119 - 0.141	No	Refinery Discharge, Erosion of Natural Deposits
Fluoride (ppm)	2.0	1	0.33	0.27 - 0.37	No	Erosion of Natural Deposits; Water Additive for Dental Health
Secondary Standards* - Tested in 2025						
Chloride (ppm)	500*	N/A	109	108 - 110	No	Runoff or Leaching from Natural Deposits
Odor (threshold odor number)	3*	N/A	1	ND - 3	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	N/A	1,049	1,030 - 1,068	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	N/A	219	217 - 221	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	N/A	625	560 - 682	No	Runoff or Leaching from Natural Deposits
Turbidity (NTU)	5*	N/A	0.25	ND - 7**	No	Soil Runoff
Unregulated Chemicals - Tested in 2025						
Alkalinity, total as CaCO3 (ppm)	Not Regulated	N/A	119	106 - 129	N/A	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	N/A	0.143	0.13 - 0.186	N/A	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	N/A	73	65 - 81.3	N/A	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO3 (ppm)	Not Regulated	N/A	293	269 - 322	N/A	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	N/A	17	16 - 19	N/A	Runoff or Leaching from Natural Deposits
Lithium (ppb)	Not Regulated	N/A	65.7	64.2 - 67.2	N/A	Various Natural and Man-made Sources
Magnesium (ppm)	Not Regulated	N/A	26.9	26 - 28.8	N/A	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	N/A	7.6	7 - 8	N/A	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	N/A	5.4	4.9 - 6	N/A	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	N/A	101	96.9 - 106	N/A	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	N/A	2.9	2.9	N/A	Various Natural and Man-made Sources

ppb = parts per billion; ppm = parts per million; pCi/L = picoCuries per liter; µmho/cm = micromhos per centimeter; NTU = nephelometric turbidity units; MCL = Maximum Contaminant Level; PHG = California Public Health Goal; MCLG = federal MCL Goal; MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal; NL = Notification Level; N/A = not applicable; TT = treatment technique.

* Chemical is regulated by a secondary standard.

** On January 21, 2025, a higher than normal (7 NTU) grab sample result was reported. This value is inconsistent with the continuous online analyzer which showed a reading of 0.0259 NTU at the same time that the grab sample was taken. The available evidence suggests that the higher than normal grab sample was not a valid representation of the water quality produced by the plant at the time. No other result above 0.1 NTU was reported throughout the year.

IRVINE RANCH WATER DISTRICT BAKER WATER TREATMENT PLANT	TREATMENT TECHNIQUE	TURBIDITY MEASUREMENTS	TT VIOLATION?	TYPICAL SOURCE IN DRINKING WATER
Turbidity - combined filter effluent				
1) Highest single turbidity measurement (NTU)	0.1	0.030	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 the 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 CHEMICALS REQUIRING MONITORING

CHEMICAL	NOTIFICATION LEVEL	PHG	AVERAGE AMOUNT	RANGE OF DETECTIONS	MOST RECENT SAMPLING DATE
Lithium (ppb)	N/A	N/A	38	30 - 47	2025

2025 METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA TREATED SURFACE WATER

CONSTITUENT	MCL	PHG (MCLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION?	TYPICAL SOURCE IN DRINKING WATER
Radiologicals - Tested in 2023 and 2025						
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND - 5	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	ND	ND - 6	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	1	ND - 3	No	Erosion of Natural Deposits
Inorganic Chemicals - Tested in 2025						
Aluminum (ppm)	1	0.6	0.058	ND - 0.082	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.13	0.13	No	Refinery Discharge, Erosion of Natural Deposits
Bromate (ppb)	10	0.1	2.4	ND - 8.4	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 2025						
Aluminum (ppb)	200*	600	58	ND - 82	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	N/A	92	84 - 99	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	N/A	1	1	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	N/A	873	759 - 987	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	N/A	182	146 - 218	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	N/A	545	465 - 625	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals - Tested in 2025						
Alkalinity, total as CaCO3 (ppm)	Not Regulated	N/A	108	93 - 122	N/A	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL=1	N/A	0.13	0.13	N/A	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	N/A	56	44 - 68	N/A	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO3 (ppm)	Not Regulated	N/A	236	191 - 280	N/A	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gal)	Not Regulated	N/A	14	11 - 16	N/A	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	N/A	22	19 - 25	N/A	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	N/A	8.3	8.2 - 8.3	N/A	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	N/A	4.3	3.8 - 4.8	N/A	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	N/A	88	78 - 97	N/A	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	N/A	2.4	1.6 - 2.6	N/A	Various Natural and Man-made Sources

ppb = parts per billion; ppm = parts per million; pCi/L = picoCuries per liter; µmho/cm = micromhos per centimeter; ND = not detected; MCL = Maximum Contaminant Level; (MCLG) = Federal MCL Goal; PHG = California Public Health Goal; NL = Notification Level; N/A = not applicable; TT = treatment technique. * Chemical is regulated by a secondary standard.

METROPOLITAN WATER DISTRICT DIEMER FILTRATION PLANT	TREATMENT TECHNIQUE	TURBIDITY MEASUREMENTS	TT VIOLATION?	TYPICAL SOURCE IN DRINKING WATER
Turbidity - combined filter effluent				
1) Highest single turbidity measurement (NTU)	0.3	0.05	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 CHEMICALS REQUIRING MONITORING

CHEMICAL	NOTIFICATION LEVEL	PHG	AVERAGE AMOUNT	RANGE OF DETECTIONS	MOST RECENT SAMPLING DATE
Lithium (ppb)	N/A	N/A	38	30 - 47	2025

Drinking Water Definitions

What are water quality standards?

Drinking water standards established by U.S. EPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water.

The tables in this report show the following types of water quality standards:

- **Maximum contaminant level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.
- **Maximum residual disinfectant level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- **Primary drinking water standard:** MCLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory action level (AL):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

What is a water quality goal?

In addition to mandatory water quality standards, U.S. EPA and DDW have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices.

The tables in this report include three types of water quality goals:

- **Maximum contaminant level goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by U.S. EPA.
- **Maximum residual disinfectant level goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Public health goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

How are contaminants measured?

Water is sampled and tested throughout the year. Contaminants are measured in:

- Parts per million (ppm) or milligrams per liter (mg/L)
- Parts per billion (ppb) or micrograms per liter (µg/L)
- Parts per trillion (ppt) or nanograms per liter (ng/L)

Source Water Assessments

U.S. EPA requires water suppliers to complete a source water assessment (SWA) that uses information collected in the watershed sanitary surveys. MWDSC completed its SWA in December 2002. The most recent SWA for IRWD's Santiago Reservoir was updated in 2001. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

Every five years, water suppliers are required by DDW to examine possible sources of drinking water contamination in their water sources. The watershed sanitary survey for MWDSC's Colorado River supply was recently updated in 2022; the survey for the State Water Project supply was updated in 2021. The IRWD's watershed sanitary survey for Santiago Reservoir (Irvine Lake) was updated in 2025. Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater. Water supplies from the Santiago Reservoir are most vulnerable to contamination from septic systems and wildfires. Copies of the most recent summary of the watershed sanitary surveys or the SWAs can be obtained by calling SMWD Customer Care at (949) 459-6420.

Where Can You Learn More?

There's a wealth of information on the internet about drinking water quality and water issues in general. Some good sites to begin your research are:

- **Metropolitan Water District of Southern California:** mwdh2o.com
- **California Department of Water Resources:** water.ca.gov
- **The Water Education Foundation:** watereducation.org

To learn more about Water Conservation & Rebate Information:

- smwd.com/conservation

To see the aqueducts in action, check out these two videos:

- **Wings Over Water:** youtu.be/8A1v1Rr2neU
- **Wings Over Metropolitan's Colorado River Aqueduct:** youtu.be/KipMQh5t0f4

Where Does Our Water Comes From? And How Does it Get to Us?

Have you ever wondered where your water comes from? Here at Santa Margarita Water District, our water is surface water imported by the MWDSC and IRWD. MWDSC's imported water sources are the Colorado River and the State Water Project, which draws water from the Sacramento-San Joaquin River Delta. Water from Northern California travels to us through a complex delivery system known as the California State Water Project. Designed and built in the 1960s, the State Water Project is one of the largest public water and power utilities in the world, providing drinking water for more than 25 million people statewide. Managed by the California Department of Water Resources, the project stretches over 700 miles from Lake Oroville in the north to Lake Perris in the south. Water stored in Lake Oroville, Folsom Lake, and other tributaries and fed by snowmelt from the Sierra Nevada Mountains flows into the Sacramento and San Joaquin Rivers, and from there into reservoirs in the Bay-Delta region. From the Bay-Delta, giant pumps lift the water into the 444-mile-long California Aqueduct, from which it flows southward to cities and farms in Central and Southern California. Composed mainly of concrete-lined canals, the aqueduct includes over 20 miles of tunnels, over 130 miles of pipelines, and 27 miles of siphons. Along the way, the water is pumped 2,882 feet over the Tehachapi Mountains. The Edmonston Pumping Plant alone lifts millions of gallons a day up 1,926 feet, the highest single water lift in the world. Is it any wonder the State Water Project is the largest single consumer of power in California?

Managed by the MWDSC, the Colorado River Aqueduct begins near Parker Dam on the Colorado River. There, the Gene Pumping Station lifts the water over 300 feet as it begins its 242-mile journey to Lake Mathews, just outside the City of Corona. Along the way, the water passes through two reservoirs, five pumping stations, 62 miles of canals, and 176 miles of tunnels, buried conduits, and siphons. All told, the water is lifted four times, for a total of more than 1,300 feet.

After its journey across the Mojave Desert, the water descends into the Coachella Valley and through the San Gorgonio Pass. Near Cabazon, the aqueduct flows underground, passing beneath the San Jacinto Mountains and continuing until it reaches its terminus at Lake Mathews. From there, 156 miles of distribution lines, along with eight more tunnels and five drinking water treatment plants, deliver treated water throughout Southern California.

Tip Top Tap

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

Kitchen Sink and Drain

Handwashing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed-up water in which bacteria (i.e., pink or black slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly and flush with hot water.

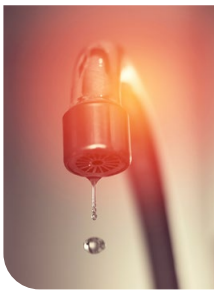
Faucets, Screens, and Aerators

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets and can collect particles like sediment and minerals, resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis. Check with your plumber if you find particles in the faucet screen, as they could be pieces of plastic from the hot water heater dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet gasket with a higher-quality product. White scaling or hard deposits on faucets and showerheads may be caused by water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softening to reduce the calcium carbonate levels for the hot water system.

Water Filtration/Treatment Devices

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time, so regular filter replacement is important. (Remember to replace your refrigerator filter!)

What Causes the Pink Stain on Bathroom Fixtures?



The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, and toothbrush holders and on pets' water bowls is caused by the growth of the bacterium Serratia marcescens. Serratia is commonly isolated from soil, water, plants, insects, and vertebrates (including humans). The bacteria can be introduced into the house through any of the above-mentioned sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to clean and dry these surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence. Serratia will not survive in chlorinated drinking water.

Q&A

Why can tap water have a taste?

Taste in drinking water is usually related to naturally occurring minerals, disinfectants, or seasonal changes in source water. While these characteristics may affect taste, they do not typically indicate a health risk.

Why is water sometimes called the "original energy drink"?

Water helps regulate body temperature, supports digestion, and keeps joints moving—without sugar, calories, or caffeine.

Can weather affect drinking water quality?

Heavy rain, drought, or seasonal changes can influence source water conditions. Water systems adjust treatment processes as needed to maintain water quality during changing environmental conditions.

Why is maintaining water infrastructure important?

Pipes, pumps, and treatment facilities are critical for delivering safe drinking water. Regular maintenance and upgrades help prevent leaks, breaks, and service disruptions.

What can customers do to help protect water quality?

Customers can help by reporting leaks, avoiding cross-connections, maintaining household plumbing, and staying informed through their annual water quality report.

Total Dissolved Solids, Alkalinity, and Hardness

Total dissolved solids (TDS) are an indicator of the aesthetic characteristics of drinking water and a gauge of a broad array of chemical constituents within the water. It is a measure of all the combined inorganic and organic substances, and while it is not associated with any health effects, TDS can impact the appearance and taste of water.

TDS is mainly inorganic salts, as well as a small amount of organic matter. Common inorganic salts found in water include calcium, magnesium, potassium and sodium, along with nitrates, chlorides, and sulfates. These minerals originate from a variety of sources, both natural and caused by human activity.

Alone, dissolved solids are usually not a health hazard. Some people buy mineral water, which has naturally elevated levels of dissolved solids. The U.S. EPA includes TDS as a secondary standard, a voluntary guideline for aesthetic and cosmetic effects. Kept within the established guidelines, TDS can impart a favorable taste to water. Too little can give water a flat taste. There are issues, however, with high levels of TDS. Increased TDS concentrations can produce hard water, which stains household fixtures, corrodes pipes, and imparts a metallic taste. Within the SMWD system, you can be assured that TDS is kept well within the State of California's established secondary standard.

Total Dissolved Solids
Average Amount: **614 mg/L**
Range: **510 - 680 mg/L**

Alkalinity
Average Amount: **113 mg/L**
Range: **98 - 130 mg/L**

Hardness
Average Amount: **256 mg/L**
Range: **210 - 300 mg/L**

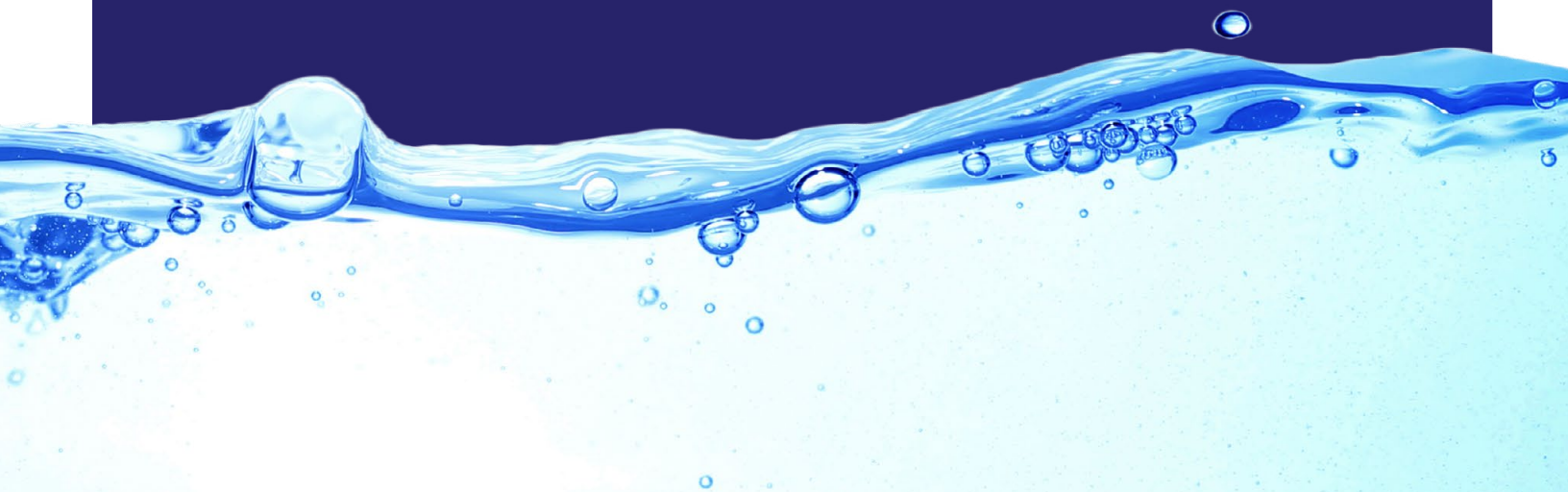
Drinking Water Fluoridation

Fluoride has been added to U.S. drinking water supplies since 1945 to help prevent tooth decay. As of today, the majority of public water suppliers in the country, including the MWDSC, fluoridate their water. MWDSC began adding fluoride in December 2007, complying with all provisions of California's fluoridation system requirements. Fluoride levels in drinking water are regulated in California and limited to a maximum of 2 parts per million (ppm). Some local groundwater supplies naturally contain fluoride, but they are not supplemented with additional fluoride.

Additional Information
For more details on water fluoridation, please visit:

- **U.S. Centers for Disease Control and Prevention (CDC):** cdc.gov/fluoridation or (800) 232-4636
- **State Water Resources Control Board, Division of Drinking Water:** waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html
- **American Dental Association:** ada.org
- **American Water Works Association:** awwa.org

For specific inquiries about MWDSC's fluoridation program, please contact MWDSC directly at (800) 225-5693.



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