



City of
**Santa
Monica**

WATER RESOURCES DIVISION

ANNUAL WATER QUALITY REPORT



JUNE 2025

REPORTING PERIOD JAN-DEC 2024

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Dear Community Members,

On behalf of the City of Santa Monica, we are pleased to publish the 2025 Annual Drinking Water Quality Report to provide a summary of water quality data for the 2024 calendar year. Throughout the year, Santa Monica Water continued to meet and exceeded all federal and state drinking water standards established by the United States Environmental Protection Agency and the State Water Resources Control Board, Division of Drinking Water (DDW).

The City's Water Resources Division is committed to delivering safe, high quality, and sustainably sourced drinking water to the community. Earlier this year, the Los Angeles region faced severe challenges due to devastating wildfires that approached the borders of our City. Our team responded by providing critical support and resources to neighboring communities, all while maintaining the integrity and safety of our own water system. Throughout the emergency, the Water Resources Division worked tirelessly to manage our water storage reservoirs, leverage our diverse water supply sources to maintain peak water production capacity, and increase water quality testing efforts to ensure uninterrupted access to clean, reliable drinking water for Santa Monica residents.

While the City's Water Resources Division continues to advance sustainable water management practices to provide a reliable and resilient water supply to the community, achieving our long-term sustainability goals are not possible without the support of our community. Continued success in water use efficiency and water conservation relies on active community participation in rebate programs, adhering to outdoor water use restrictions, and mindful water use in our everyday lives. To enhance water use efficiency, the City recently completed its Advanced Metering Infrastructure Project that provides customers with real time information about their water use, billing, and leak detection. Please visit www.santamonica.gov/advanced-metering-infrastructure-project for details on the project and how to sign-up for **EyeOnWater** to monitor your water usage and to alert you of possible water leaks on your property.

The City continues to invest in our water infrastructure through rehabilitation and replacement of aging infrastructure, implementing cutting-edge treatment technologies to protect water quality, and diversifying our water supply sources, all culminating in a resilient and sustainable water supply portfolio for the community.

On behalf of the City of Santa Monica Public Works Department and the employees of the Water Resources Division, thank you for allowing us to serve you.

Sincerely,

Sunny Wang
Water Resources Manager

Santa Monica's Water Source And Treatment System



The Arcadia Water Treatment Plant was recently retrofitted to enhance overall production efficiency and aid in sustainable groundwater management.

The City of Santa Monica currently obtains up to 75% of its water from local groundwater wells within the City and in West Los Angeles. The City extracts its water from three sub-basins within the Santa Monica Basin (Charnock, Olympic, and Arcadia Sub-basins), with the Charnock Sub-basin being a local supply for over 100 years!

The treated water from the Charnock Well Field is then sent to the Arcadia Treatment Plant, and along the way it blends with water from the Olympic and Arcadia Sub-basin wells. Once the water arrives at the Arcadia Treatment Plant, it undergoes a treatment process that includes Iron/Manganese removal, filtration, Reverse Osmosis (RO) softening, disinfection, and fluoridation.

Softening is the process of removing scale-forming calcium and magnesium from hard water. RO performs softening by forcing hard water through membranes with very small pores, sized from 0.0001 - 0.001 micrometers.

TO PUT THESE UNITS INTO CONTEXT:

One part per billion (ppb)	= 1 second in 31.7 years
	= 1 teaspoon in 1.3 million gallons
One part per million (ppm)	= 1 second in 11.6 days
	= 1 teaspoon in 1,302 gallons

The complete treatment process is further outlined on the "Santa Monica Water Treatment Process" diagram.

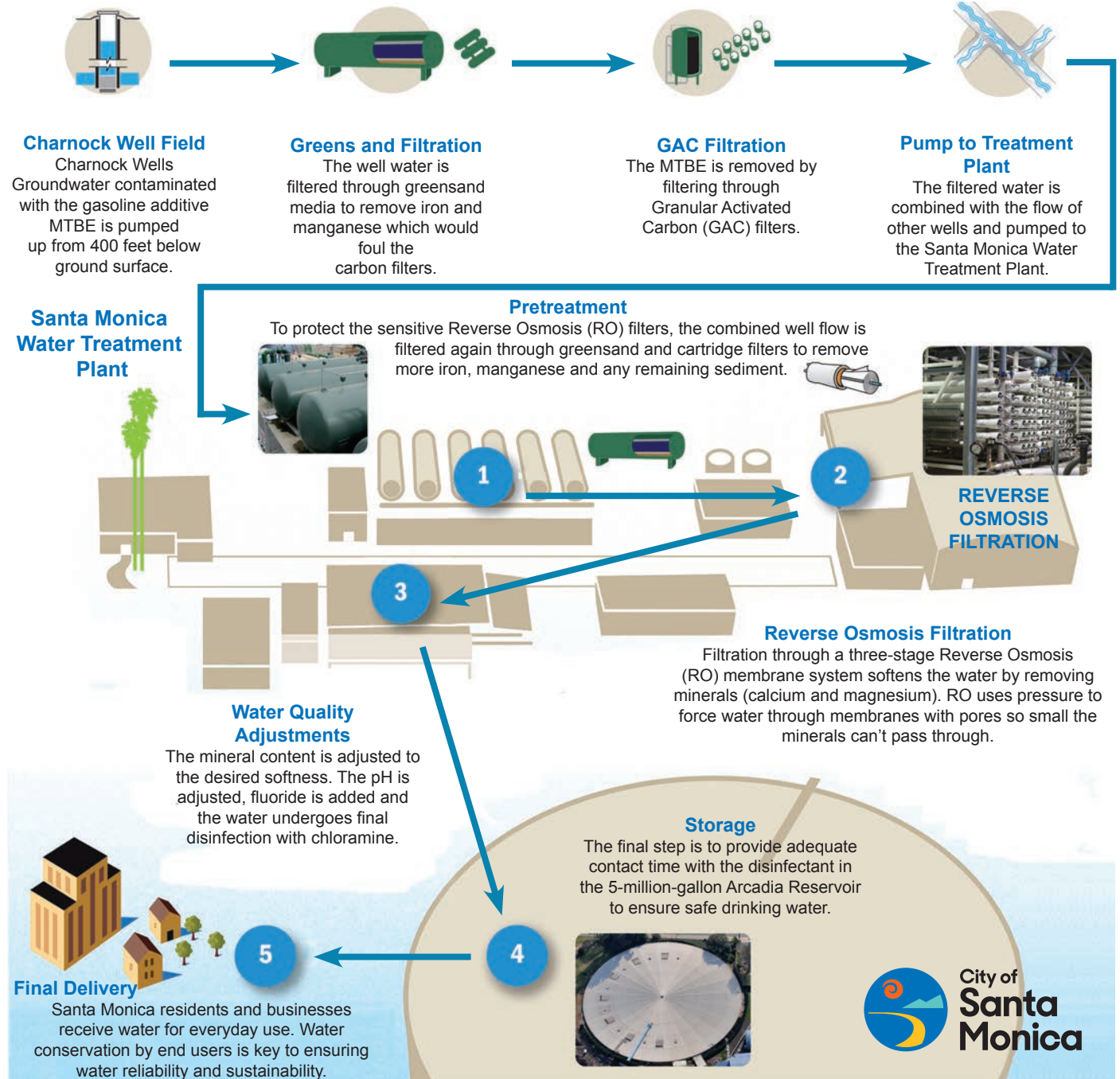
The City of Santa Monica Water Resources Division values transparency, we hope that you find this report clear and easy to understand. If you have any questions, please call us at (310) 434-2672.

El Departamento de Recursos de Agua de la ciudad de Santa Monica valora una gestión transparente; por consiguiente, esperamos que encuentre este informe claro y fácil de entender. Si usted tiene alguna pregunta, por favor comuníquese al (310) 434-2672.

**Contact information is available on the last page of this report.*



SANTA MONICA WATER TREATMENT PROCESS





The California Aqueduct in the Central Valley.

The remaining 25% of Santa Monica's drinking water is purchased from Metropolitan Water District (MWD). Treated MWD water is blended with our locally produced water, and then distributed to our residents. MWD imports water from two separate sources. One is the Colorado River water, which is delivered from Lake Havasu through a 242-mile-long aqueduct and originates as snowmelt from mountainous regions in Utah, Wyoming, and Colorado. The second is from the State Water Project, which is delivered through the 441-mile-long California Aqueduct and originates in the Sacramento-San Joaquin Delta. MWD water is filtered at their treatment plants and undergoes extensive treatment before entering Santa Monica's water system.

For more information about the City's treatment facilities please call the Water Resources Division (see back cover for contact information).

Background on 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.

***Contact information is available on the last page of this report.*

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

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California State Water Resources Control Board (SWRCB) prescribe regulations that limit the concentration of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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 people, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection from *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

*** You can help protect source water purity by controlling what enters storm drains. The following site provide guides on how you can protect Drinking Water Sources:*

www.epa.gov/sourcewaterprotection/easy-things-you-can-do-protect-drinking-water-sources

Information on environmentally friendly products is available at:

<https://www.santamonica.gov/departments/public-works/office-of-sustainability-and-the-environment>

To report storm drain pollution, please contact the City's Wastewater Department. See back cover for contact information.

Source Water Vulnerability Assessments

Between 2000 and 2012, the California State Water Resources Control Board, Division of Drinking Water (DDW) completed Source Water Vulnerability Assessments for all the City's groundwater wells. The assessments are required for all water utilities nationwide to evaluate the vulnerability of

***Contact information is available on the last page of this report.*

drinking water sources for “possible contaminating activities.” Vulnerabilities most associated with contamination include commercial, industrial, urban runoff, and municipal activities. Based on the vulnerability assessments, Santa Monica Well #4 located mid-city, Arcadia Wells #4 and #5, and Charnock Wells #13, #16, #18, #19 and #20, located in West L.A. are considered most vulnerable to commercial, industrial, residential, and municipal activities. Santa Monica Well #1, located on the north side of the city, Well #4, and the Arcadia Wells are considered most vulnerable by their proximity to sewer collection systems, although monthly analyses have detected no related contamination.

For more information, please contact the Water Resources Division.*

In March and June 2012, MWD completed a source water assessment of its Colorado and State Project supplies. Based upon the vulnerability assessments, the Colorado River and State Project supplies are most vulnerable to contamination resulting from recreation, urban/storm water runoff, increasing urbanization in the watershed, and wastewater.

A copy of the assessment can be obtained by contacting MWD (see back cover for contact information).



Santa Monica's Drinking Water Quality

Permission and oversight to operate a community water system is granted annually by the DDW and the USEPA. Santa Monica's water supply undergoes constant field and laboratory testing to ensure the highest water quality before reaching your tap. The water is sampled and analyzed daily, weekly, monthly, quarterly, semi-annually, annually, and triennially. In addition, our water quality management practice includes ensuring optimum performance of all assets associated with water production and distribution. This includes the source wells, treatment plants, distribution system, and reservoirs. Managing reservoirs to meet varying demand and testing the water at over 100 locations throughout the City's distribution system monthly are just two examples of how water quality goals are maintained.

We look for more than 100 substances including microorganisms, pesticides, herbicides, asbestos, lead, copper, petroleum-based products, and by-products of industrial and water treatment processes. As a result, we conduct more than 8,000 laboratory tests each year.



Our state-certified laboratory perform routine tests to ensure clean and healthy drinking water.

Water Quality Data Tables

Santa Monica Water continues to meet and exceed all USEPA and State Drinking Water Health Standards. The following data tables compare our water quality with Drinking Water Health Standards. The data is organized by source of water in two categories, each with two sub-parts:

LOCAL GROUNDWATER

- Arcadia Treatment Plant: Collects water from 9 wells, completes treatment, and sends to distribution.
- Santa Monica Well #1: Treats supply at the source and pumps directly into distribution.

METROPOLITAN WATER DISTRICT (MWD)

Treatment plants that send treated water to Santa Monica:

- Weymouth Plant
- Jensen Plant

The results are presented in two tables: Primary Drinking Water Quality Results and Secondary Drinking Water Quality Results. The primary results cover contaminants that may affect the public's health. These contaminants include hazardous chemicals, metals, bacteria, and radioactivity. The secondary results cover parameters that may affect the aesthetics of the water, such as taste, appearance, and odor. These parameters include turbidity, minerals, and pH among others.

For questions regarding water quality, call the Water Resources Division (see back cover for contact information).

SUMMARY OF RESULTS FOR PRIMARY DRINKING WATER STANDARDS FOR 2024

PARAMETER	PHG/ [MCLG]/ {MRDLG}	State MCL/ {MRDL}	LOCAL WELL WATER Arcadia Plant		SM WELL #1(a)		IMPORTED SURFACE WATER Jensen Plant		IMPORTED SURFACE WATER Weymouth Plant		Dates Sampled if other than 2024(b)	Meets Std	MAJOR SOURCES IN DRINKING WATER
			Average	Range	Average	Range	Average	Range	Average	Range			
PRIMARY DRINKING WATER STANDARDS (MANDATORY HEALTH-RELATED STANDARDS)													
<u>Clarity</u>													
Maximum Turbidity (NTU)	NS	95% < 0.3	NA	NA	NA	NA	ND	100% ≤ 0.3	ND	100% ≤ 0.3		Y	Soil runoff
<u>Microbiological</u>													
Total Coliform Bacteria	[0]	5%	Citywide Highest Monthly: 0% Positive Samples				Range: ND	No violations			Y	Naturally present in the environment	
(% positive samples/month)													
Fecal Coliform/E. Coli	[0]	(c)	Citywide Maximum: 0 Positive Samples								Y	Human and animal fecal waste	
<u>Organic Chemical</u>													
Methyl tert-Butyl Ether (MTBE) (ppb)	13	13(5*)	ND	ND	ND	ND	ND	ND	ND	ND		Y	Leaking underground storage tanks
Trichloroethylene (ppb)	1.7	5	0.7	0.5 - 0.9	ND***	ND***	ND	ND	ND	ND	2023***	Y	Discharge from metal degreasing sites
1,2,3-Trichloropropane (TCP) (ng/L)	0.7	5	ND	ND	ND***	ND***	ND	ND	ND	ND	2021***	Y	Discharge and leaching from industrial/agricultural, and hazardous waste sites used as cleaning solvent for paint, varnish, and degreasing; pesticide by product
<u>Disinfection</u>													
<u>Byproducts & Residuals</u>													
Total Trihalomethanes (ppb)	NS	80	Citywide LRAA: 20.9				Range: 6.9 - 50.2				Y	By-product of drinking water chlorination	
Haloacetic Acids (ppb)	NS	60	Citywide LRAA: 3.8				Range: ND - 17.5				Y	By-product of drinking water chlorination	
Total Chlorine/Chloramines (ppm)	{4}	{4}	Citywide Average: 2.00				Range: ND - 3.5				Y	Drinking water disinfectant added for treatment	
Bromate (ppb)	0.1	10	NA	NA	NA	NA	3.1**	ND - 5.4	2.0**	ND - 9.2		Y	By-product of drinking water ozonation
Total Organic Carbon (ppm)	N/A	TT	NA	NA	NA	NA	2.4**	2.0 - 2.5	2.4**	2.1 - 2.6			
<u>Inorganic Chemicals</u>													
Aluminum (ppb)	600	1000 (200*)	ND	ND	ND***	ND***	62**	52 - 91	93**	ND - 150	2022***	Y	Erosion of natural deposits; used in water treatment process
Arsenic (ppb)	0.004	10	ND	ND	ND***	ND***	ND	ND	ND	ND	2022***	Y	Erosion of natural deposits
Barium (ppm)	2	1	ND	ND	0.04***	0.04***	ND	ND	124	124	2022***	Y	Discharge from oil and metal industries; Erosion of natural deposits
Chromium (ppb)	[100]	50	ND	ND	ND***	ND***	ND	ND	ND	ND	2022***	Y	Discharge from steel and pulp mills; natural deposits erosion
Chromium 6 (ppb)	0.02	NS	0.1	0.1	1.7***	1.7***	ND	ND	ND	ND	2022***	Y	Naturally occurring; industrial waste discharge
Copper (d) (ppm)	0.3	AL=1.3 (1.0*)	Citywide, 90th percentile: 0.20				0 sites out of 35 exceeded the AL				2022	Y	Corrosion of household plumbing systems
Fluoride After Treatment (ppm)	1	2	Control Range: 0.6 - 1.2				Citywide Range: 0.7 - 1.9					Y	Water additive for dental health
Lead (d) (ppb)	0.2	AL=15	Citywide, 90th percentile: 2.10				0 sites out of 35 exceeded the AL (d)				2022	Y	Corrosion of household plumbing systems
Nitrate (as N) (ppm)	10	10	0.2	ND - 0.2	2.8	2.8	0.5	0.5	ND	ND			Runoff from fertilizer use; leaching from sewage; erosion of natural deposits
Perchlorate (ppb)	1	6	ND	ND	0.7***	0.7***	ND	ND	ND	ND	2022***	Y	Industrial waste discharge
<u>Radionuclides</u>													
Alpha emitters (pCi/L)	[0]	15	ND	ND	ND***	ND***	ND	ND	ND	ND	2022***	Y	Erosion of natural deposits
Beta/photon emitters (pCi/L)	[0]	50	NA	NA	NA	NA	ND	ND	ND	ND - 5		Y	Decay of natural and man-made deposits
Combined Radium (pCi/L)	[0]	5	ND	ND	ND***	ND***	ND	ND	ND	ND	2023***	Y	Erosion of natural deposits
Uranium (pCi/L)	0.43	20	1.6	1.1 -2.1	ND***	ND***	2	2 - 3	ND	ND - 3	2022***	Y	Erosion of natural deposits

KEY TO ABBREVIATIONS

PDWS = Primary Drinking Water Standards are MCLs, MRDLs, and Treatment Techniques TTs for contaminants that affect health, along with their monitoring and reporting requirements.

PHG = Public Health Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

MCLG = Maximum Contaminant Level Goal is 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. Environmental Protection Agency.

MCL = Maximum Contaminant Level is 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.

MRDLG = Maximum Residual Disinfectant Level Goal is 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.

MRDL = Maximum Residual Disinfectant Level is 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.

LRAA = Locational Running Annual Average. The running annual average is based on monitoring location.

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

NA = Not Applicable

ND = Monitored for but Not Detected

NS = No Standard

NTU = Nephelometric Turbidity Units - used to measure cloudiness of drinking water.

TT = Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

ppb = parts per billion, or micrograms per liter (µg/L)

ppm = parts per million, or milligrams per liter (mg/L)

pCi/L = picocuries per liter

* = Secondary Standard

** = Highest Running Average (RAA)

*** = Santa Monica Well #1 offline in 2023 for maintenance purposes. For reporting purposes, this information is from 2021, 2022, or 2023 (prior to offline status).

(a) = SM Well#1 is pumped into a transmission line, is blended with Imported Surface Water and enters the system at 19th St. & Idaho Ave.

(b) = The City is not required to test for every parameter each year. If indicated, data is from a previous year.

(c) = The E. coli MCL is based on routine and repeat samples testing positive for coliforms and/or E. coli or failure to collect required repeat samples. Fecal Coliform/E. Coli constitutes an acute MCL violation. No Level 1 Assessments or MCL violations occurred for 2024.

(d) = The MCL has been replaced with a treatment technique requiring agencies to optimize corrosion control. Results given are from first draw, at-the-tap monitoring performed every three years.

FOR ADDITIONAL WATER QUALITY QUESTIONS CONTACT THE LEAD CHEMIST, CLEMENT DO, AT (310) 434-2672.

For additional water quality questions, contact lead chemist, Clement Do at (310) 434-2672.

SUMMARY OF RESULTS FOR SECONDARY DRINKING WATER STANDARDS FOR 2024

PARAMETER	PHG/ [MCLG]	State MCL	LOCAL WELL WATER Arcadia Plant		SM WELL #1(a)		IMPORTED SURFACE WATER Jensen Plant		IMPORTED SURFACE WATER Weymouth Plant		Dates Sampled if other than 2023(b)	Meets Std	MAJOR SOURCES IN DRINKING WATER
			Average	Range	Average	Range	Average	Range	Average	Range			
			SECONDARY DRINKING WATER STANDARDS (AESTHETIC STANDARDS)										
<u>Chemical Parameters</u>													
Chloride (ppm)	NS	500	26.5	25 - 28	112	112	40	39 - 41	106	96 - 116	2022***	Y	Runoff/leaching from natural deposits; industrial wastes
Color (units)	NS	15	<5	<5	<5	<5 - 8	1	1	1	1		Y	Naturally-occurring organic materials
Iron (ppb)	NS	300	18	ND - 95.5	6.8	6.8	ND	ND	ND	ND		Y	Leaching from natural deposits; industrial wastes
Manganese (ppb)	NS	50	ND	ND	5.6	5.6	ND	ND	ND	ND		Y	Leaching from natural deposits
Odor- Threshold (units)	NS	3	<1	<1	<1	<1	1	1	ND	ND		Y	Naturally-occurring organic materials; chlorine
Specific Conductance (µmho/cm)	NS	1600	324	275 - 452	1346	1339 - 1353	510	498 - 522	996	912 - 1080		Y	Substances that form ions when in water; seawater influence
Sulfate (ppm)	NS	500	52.2	47.7 - 57.3	257	257	90	89 - 92	225	200 - 250		Y	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	NS	1000	182	137 - 210	947***	947***	306	291 - 322	632	573 - 690		Y	Runoff/leaching from natural deposits
Turbidity (NTU)	—	5	0.08	0.04 - 0.14	0.17	0.14 - 0.20	ND	ND	ND	ND		Y	Soil runoff

ADDITIONAL PARAMETERS										
Alkalinity (ppm)	NS	NS	65.9	58.7 - 80.4	337	337	98	94 - 101	118	109 - 127
Boron (ppb)	NS	NL=1000	200	200	220***	220***	170	170	140	140
Calcium (ppm)	NS	NS	24	20.3 - 32.9	133	133	38	38 - 39	68	59 - 76
Hardness (as CaCO ₃) (ppm)	NS	NS	106	92.6 - 134	582	582	270	235 - 305	272	241 - 303
Magnesium (ppm)	NS	NS	8.4	8.4	65***	65***	14	13 - 14	26	23 - 29
pH (units)	NS	NS	8.4	8.2 - 8.7	7.3	7.3 - 7.4	8.3	8.2 - 8.3	8.2	8.2
Potassium (ppm)	NS	NS	ND	ND	4.1***	4.1***	2.6	2.6	5	4.6 - 5.4
Radon (pCi/L)	NS	NS	ND	ND	389***	389***	ND	ND	ND	ND
Sodium (ppm)	NS	NS	30	30	89***	89***	46	46	105	93 - 117
1, 4-Dioxane (ppb)	NS	NL=1	ND	ND	ND***	ND***	NA	NA	NA	NA
N-Nitrosodimethylamine (NDMA) (ppt)	3	NL=10	NA	NA	NA	NA	ND	ND	ND	ND
tert-Butyl Alcohol (TBA) (ppb)	NS	NL=12	ND	ND	NA	NA	ND	ND	ND	ND

2022***
2022***
2022***
2022***
2022***
2022***

KEY TO ABBREVIATIONS

PHG = Public Health Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

MCLG = Maximum Contaminant Level Goal is 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. Environmental Protection Agency.

MCL = Maximum Contaminant Level is 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.

NL = Notification Level is a health based advisory level established by Division of Drinking Water (DDW) for chemicals in drinking water that lack maximum contaminant levels, but warrants notification.

NA = Not Applicable

NS = No Standard

ND = Monitored for, but Not Detected

NTU = Nephelometric Turbidity Units - used to measure cloudiness of drinking water.

ppb = Parts per billion, or micrograms per liter (ug/l)

ppm = Parts per million, or milligrams per liter (mg/l)

ppt = Parts per trillion, or nanograms per liter (ng/l)

umho/cm = micromhos per centimeter

< = less than

******* = Santa Monica Well #1 offline in 2023 for maintenance purposes. For reporting purposes, this information is from 2021, 2022, or 2023 (prior to offline status).

(a) = SM Well#1 is pumped into a transmission line, is blended with Imported Surface Water and enters the system at 19th St. and Idaho Ave.

(b) = We are not required to test for each parameter every year. If indicated, data is from a previous year.

(c) = MWD has developed a flavor-profile analysis method that can more accurately identify odor occurrences.

FOR ADDITIONAL WATER QUALITY QUESTIONS, CONTACT CLEMENT DO, LEAD CHEMIST AT (310) 434-2672





Operator conducting daily water quality and performance checks at the Arcadia Water Treatment Plant.

1,4-Dioxane and Drinking Water

1,4-Dioxane is a synthetic contaminant that has leached into numerous groundwater sources in Southern California. It is a colorless liquid solvent and solvent stabilizer used in industrial and commercial applications. 1,4-Dioxane is an unregulated contaminant, meaning it has not completed the regulatory standard setting process to be prescribed a maximum contaminant level (MCL). However, it has a notification level (NL) as a precautionary measure that represents a level of contamination that is not a health risk but justifies notification to the public. 1,4-Dioxane is classified as a probable carcinogen believed to cause health effects after long-term exposure or ingestion. In 2024, the City completed the Olympic Well Field Advanced Water Treatment Facility, co-located at the Arcadia Water Treatment Plant, to remove 1,4-dioxane through Ultraviolet Light Advanced Oxidation Process (UVAOP). The UVAOP uses UV light and hydrogen peroxide to create hydroxyl radicals to effectively remove 1,4-dioxane and other volatile organic contaminants from our groundwater supply.



New Ultraviolet Light Advanced Oxidation Process added to remove industrial contaminants from the Olympic Well Field.

**Contact information is available on the last page of this report.*

Per- and Polyfluoroalkyl Substances (PFAS)

PFAS are a group of compounds containing carbon to fluorine chemical bonds, one of the strongest in organic chemistry. They are manufactured and used to enhance repellency of water, grease, and soil in consumer products; thus, they are very stable and resistant to environmental degradation. If exposed, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonate (PFOS) are readily absorbed but not readily eliminated from the human body. According to the SWRCB potential health concerns, long-term exposure can cause harmful health effects to a developing fetus or infant; suppress the immune system; disrupt the thyroid function, increase liver weight; and can lead to cancer.

DDW has issued drinking water notification levels (NLs) and response levels (RLs) for PFAS. According to OEHHA recommendations, these levels provide some health risk protection in sensitive populations and demonstrate low cancer risk with 70-year lifetime exposure.

If a utility exceeds the RL(s), regulations require the water source be taken out of service, provide treatment, or notify customers.

Perfluoroalkyl and Polyfluoroalkyl Substances

PFAS Compound	Notification Level (ppt)	Response Level (ppt)
Perfluorooctanoic Acid (PFOA)	5.1ppt	10 ppt
Perfluorooctanesulfonic Acid (PFOS)	6.5 ppt	40 ppt
Parts per trillion (ppt) = 1 second in 31,709.8 years		

Apart from drinking water, PFOA and PFOS exposure can occur from other sources: firefighting foaming/fire preventing agents; products that repel water, grease, and soil.

In April 2019, the SWRCB investigated source water wells in California most vulnerable to PFAS contamination. This included those near airports and landfills, and later those near secondary sources of PFAS activities. SWRCB did not require Santa Monica to sample its sources. However, since 2019, City staff proactively monitors and samples the City's Drinking Water sources for PFAS and it has not been detected in our drinking water supply to date. All PFAS samples analyzed by an outside laboratory were Non-Detect (ND). Additionally, GAC and RO, both part of the City's treatment process, are effective at removing any PFAS compounds.

**Contact information is available on the last page of this report.*

Chlorate in Drinking Water

Chlorate is a common disinfectant byproduct in the drinking water treatment process that often forms when sodium hypochlorite or chlorine dioxide are used as disinfectants. The DDW established a NL for chlorate at 0.8 mg/L. Notification level compounds in California serve as health-based advisory levels for drinking water. This is not a violation of drinking water regulations as chlorate does not have an enforceable regulatory standard. Non-carcinogenic contaminants, such as chlorate, with notification levels do not currently have MCLs because their presence does not pose an immediate health threat. Through routine proactive monitoring of the City's water quality, an exceedance of chlorate above the NL of 0.8 mg/L was detected at the City's Riviera Reservoir at 2.4 mg/L, but below the response level of 8.0 mg/L. Out of an abundance of caution, operation staff isolated the reservoir immediately and took it out of service upon detection.

Potential health impacts of consuming high levels of chlorate include gastrointestinal irritation, impaired thyroid function, interference with the nervous system, increased risk of anemia, and damage to liver and kidney functions. The chlorate level detected at the Riviera Reservoir is well below levels that would trigger these health concerns. Staff determined that the source of chlorate was from the City's bulk sodium hypochlorite (chlorine) supplier and has since switched suppliers and implemented additional quality control measures to prevent future incidents.

Lead in Plumbing

The City's laboratory chemists closely monitor lead results to ensure healthy drinking water, and to evaluate and determine Santa Monica's water system has achieved "optimized corrosion control." The next round of testing is scheduled for 2025. A pool of "high risk" homes, which were plumbed before the ban on lead in solder, have been tested every three years since 1992 and has continually indicated there is little tendency of our water to leach lead out of plumbing.

If your home plumbing contains lead, there is a limited potential for lead to leach into your water. Fortunately, the minerals in our water help to protect against pipe corrosion, greatly reducing the potential of lead entering the water. These minerals form a film called "scale" that prevents water from coming into direct contact with home plumbing. The most common place to find lead in household plumbing is in chrome-plated brass faucets and fixtures. California enacted stricter regulations for plumbing fixtures in 2010 further reducing the potential for lead leaching from household plumbing.

If present, however, 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 Monica



Operators Testing Fire Hydrants During the Wildfire Emergency to Ensure Operational Readiness.

is responsible for providing high quality drinking water and removing 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.

The City of Santa Monica has completed a lead service line inventory required by the U.S. EPA's Lead and Copper Rule Revisions which has concluded that the City's distribution system does not contain any lead. The City's statement regarding our lead service line inventory can be found at www.santamonica.gov/topic-explainers/water-service.

If you are concerned about lead in your water and wish to have your water tested, contact the Water Quality Office. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline* or at <https://www.epa.gov/safewater/lead>.



Santa Monica Pier

At Home Filters

The decision to buy a water filter or home treatment system is a matter of personal preference. Our water meets or exceeds rigid state and federal health standards. If you decide to buy a filter or system, be a smart shopper and do some homework. Any treatment device you buy should be registered with the National Sanitation Foundation (NSF). Contact NSF toll free at (800) 673-6275 or visit www.nsf.org.

Bottled Water

Again, the decision is yours. You may find that keeping a pitcher of tap water in your refrigerator is a low-cost, water-thrifty alternative to buying more expensive bottled water, and it's far better for the environment. Even when the bottle is reused or recycled, the petrochemicals used in creating the bottle and the transportation of the water have a significant impact on the environment.

Water Conservation

The City of Santa Monica has developed a sustainable water supply and taken responsible steps to improve water conservation amid a changing climate. The City provides many programs and incentive for our customers to conserve and improve the City's water supply for future generations. To continue meeting our water conservation goals, the City urges our residents to continue their conservation efforts because small changes make a difference. For more information and water saving tips, please visit www.santamonica.gov/topic-explainers/water-conservation

**Contact information is available on the last page of this report.*

Sustainability

The City of Santa Monica offers programs and incentives for environmentally friendly measures for the community. For more information, please call or visit the Office of Sustainability website at:

<https://www.santamonica.gov/departments/public-works/office-of-sustainability-and-the-environment>



City of Santa Monica City Hall

We need you!

Public involvement is fundamental to ensuring that we are meeting our water supply demand, water quality goals, and the highest customer service level. We welcome your feedback and invite you to get involved with the City of Santa Monica in the following ways:

- Participate in conservation events
- Attend City Council and community meetings
- Sign up for the newsletters and alerts
- Please let us know how we are doing.

For information on these opportunities, please call Water Resources and the Office of Sustainability and the Environment. For a digital copy of this report, please visit:

<https://www.santamonica.gov/departments/public-works/office-of-sustainability-and-the-environment>

**Contact information is available on the last page of this report.*

Where Can I Get More Information?

City of Santa Monica Public Works and
Water Resources Division Offices:

Water Resources/Water Quality	(310) 434-2672
24-Hour Water Emergencies	(310) 434-2672
Wastewater	(310) 458-8532
Lead Chemist.....	(310) 434-2672
Billing Office	(310) 458-8224

Visit our website:

<https://www.santamonica.gov/topic-explainers/your-guide-to-water>

Santa Monica City Council Meetings:

2nd & 4th Tuesdays of each month
Council Chamber
1685 Main Street, Santa Monica

www.santamonica.gov/departments/city-clerks-office

City of Santa Monica Office of Sustainability and
the Environment (310) 458-2213
Conservation Office (310) 458-8972

<https://www.santamonica.gov/departments/public-works/office-of-sustainability-and-the-environment>

Metropolitan Water District (MWD)
of Southern California..... (213) 217-6000
Toll Free..... (800) 354-4420

www.mwdh2o.com

California State Water Resources Control Board
Division of Drinking Water (818) 551-2004

www.waterboards.ca.gov/drinking_water/

U.S. Environmental Protection Agency
Office of Ground Water & Drinking Water
Safe Drinking Water Hotline (800) 426-4791

www.epa.gov/safewater/dwhealth.html
water.epa.gov/drink/guide



City of
**Santa
Monica**

Water Resources Division

P.O. Box 2200, 1685 Main Street
Santa Monica, CA 90406-2200

City of Santa Monica Water Resources Division
Summary of Results for Primary and Secondary Drinking Water Standards for 2024

PARAMETER	PHG/ [MCLG]/ {MRDLG}	State MCL/ {MRDL}	LOCAL WELL WATER Arcadia Plant Average Range		SM WELL #1 (a) Average Range		IMPORTED SURFACE WATER Jensen Plant Average Range		IMPORTED SURFACE WATER Weymouth Plant Average Range		Dates Sampled if other than 2023(b)	MAJOR SOURCES IN DRINKING WATER
Clarity												
Maximum Turbidity (NTU)	NS	95% <0.3	NA	NA	NA	NA	ND	100% ≤ 0.3	ND	100% ≤ 0.3		Soil runoff
Organic Chemicals												
Methyl tert-Butyl Ether (MTBE) (ppb)	13	13(5*)	ND	ND	ND	ND	ND	ND	ND	ND		Leaking underground storage tanks
Trichloroethylene (ppb)	1.7	5	0.7	0.5 - 0.9	ND***	ND***	ND	ND	ND	ND	2023***	Discharge from metal degreasing sites
1,2,3-Trichloropropane (TCP) (ng/L)	0.7	5	ND	ND	ND***	ND***	ND	ND	ND	ND	2021***	
Disinfection Byproducts & Residuals												
Bromate (ppb)	0.1	10	NA	NA	NA	NA	3.1**	ND - 5.4	2.0**	ND - 9.2		By-product of drinking water ozonation
Total Organic Carbon (ppm)	NA	TT	NA	NA	NA	NA	2.4**	2.0 - 2.5	2.4**	2.1 - 2.6		
Inorganic Chemicals												
Aluminum (ppb)	600	1000 (200*)	ND	ND	ND***	ND***	62**	52 - 91	93**	ND - 150	2022***	Erosion of natural deposits; used in water treatment process
Arsenic (ppb)	0.004	10	ND	ND	ND***	ND***	ND	ND	ND	ND	2022***	Erosion of natural deposits
Barium (ppm)	2	1	ND	ND	0.04***	0.04***	ND	ND	124	124	2022***	Discharge from oil & metal industries; erosion of natural deposits
Chromium (ppb)	[100]	50	ND	ND	ND***	ND***	ND	ND	ND	ND	2022***	Discharge from steel and pulp mills; natural deposits erosion
Chromium 6 (ppb)	0.02	NS	0.1	0.1	1.7***	1.7***	ND	ND	ND	ND	2022***	Naturally occurring; industrial waste discharge
Nitrate (as N) (ppm)	10	10	0.2	ND - 0.2	2.8	2.8	0.5	0.5	ND	ND		Runoff from fertilizer use; leaching from sewage; erosion of natural deposits
Perchlorate (ppb)	1	6	ND	ND	0.7***	0.7***	ND	ND	ND	ND	2022***	Industrial waste discharge
Radionuclides												
Alpha emitters (pCi/L)	[0]	15	ND	ND	ND***	ND***	ND	ND	ND	ND	2022***	Erosion of natural deposits
Beta/photon emitters (pCi/L)	[0]	50	NA	NA	NA	NA	ND	ND	ND	ND - 5		Decay of natural and man-made deposits
Combined Radium (pCi/L)	[0]	5	ND	ND	ND***	ND***	ND	ND	ND	ND	2023***	Erosion of natural deposits
Uranium (pCi/L)	0.43	20	1.6	1.1 - 2.1	ND***	ND***	2	2 - 3	ND	ND - 3	2022***	Erosion of natural deposits

PARAMETER	PHG/ [MCLG]/ {MRDLG}	State MCL/ {MRDL}	CITYWIDE DISTRIBUTION SYSTEM			MAJOR SOURCES IN DRINKING WATER
Microbiological						
Total Coliform Bacteria (% positive samples/month)	[0]	5%	Citywide Highest Monthly: 0% Range: ND No violations			Naturally present in the environment
Fecal Coliform/E. Coli	[0]	(c)	Citywide Maximum: 0 Positive Samples			Human and animal fecal waste
Disinfection Byproducts & Residuals						
Total Trihalomethanes (ppb)	NS	80	Citywide LRAA: 20.9 Range: 6.9 - 50.2			By-product of drinking water chlorination
Haloacetic Acids (ppb)	NS	60	Citywide LRAA: 3.8 Range: ND - 17.5			By-product of drinking water chlorination
Total Chlorine/Chloramines (ppm)	{4}	{4}	Citywide Average: 2.00 Range: ND - 3.5			Drinking water disinfectant added for treatment
Inorganic Chemicals						
Copper (d) (ppm)	0.3	AL=1.3(1.0*)	Citywide 90th percentile: 0.20 0 sites out of 35 exceeded the AL		2022	Corrosion of household plumbing systems
Fluoride After Treatment (ppm)	1	2	Control Range: 0.6 - 1.2 Citywide Range: 0.7 - 1.9			Water additive for dental health
Lead (d) (ppb)	0.2	AL=15	Citywide 90th percentile: 2.10 0 site out of 35 exceeded the AL (d)		2022	Corrosion of household plumbing systems

PARAMETER	PHG/ [MCLG]/ {MRDLG}	State MCL/ {MRDL}	LOCAL WATER Plant Average Range	WELL Arcadia Range	SM WELL #1 (a) Average Range		IMPORTED WATER Plant Average Range	SURFACE Jensen Average Range	IMPORTED WATER Weymouth Plant Average Range	SURFACE WATER Range	MAJOR SOURCES IN DRINKING WATER
Chemical Parameters											
Chloride (ppm)	NS	500	26.5	25 - 28	112	112	40	39 - 41	106	96 - 116	Runoff/leaching from natural deposits; industrial wastes
Color (units)	NS	15	<5	<5	<5	<5 - 8	1	1	1	1	Naturally-occurring organic materials
Iron (ppb)	NS	300	18	ND - 95.5	6.8	6.8	ND	ND	ND	ND	Leaching from natural deposits; industrial wastes
Manganese (ppb)	NS	50	ND	ND	5.6	5.6	ND	ND	ND	ND	Leaching from natural deposits
Odor-Threshold (units)	NS	3	<1	<1	<1	<1	1	1	ND	ND	Naturally-occurring organic materials; chlorine
Specific Conductance (umho/cm)	NS	1600	324	275 - 452	1346	1339 - 1353	510	498 - 522	996	912 - 1080	Substances that form ions when in water; seawater influence
Sulfate (ppm)	NS	500	52.2	47.7 - 57.3	257	257	90	89 - 92	225	200 - 250	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	NS	1000	182	137 - 210	947***	947***	306	291 - 322	632	573 - 690	Runoff/leaching from natural deposits
Turbidity (NTU)	-	5	0.08	0.04 - 0.14	0.17	0.14 - 0.20	ND	ND	ND	ND	Soil runoff

PARAMETER	PHG/ [MCLG]/ {MRDLG}	State MCL/ {MRDL}	LOCAL WATER Plant Average Range	WELL Arcadia Range	SM WELL #1 (a) Average Range	IMPORTED WATER Plant Average Range	SURFACE Jensen Average Range	IMPORTED WATER Weymouth Plant Average Range	SURFACE WATER Range	Dates Sampled if other than 2023(b)	
Alkalinity (ppm)	NS	NS	65.9	58.7 - 80.4	337	337	98	94 - 101	118	109 - 127	2022***
Boron (ppb)	NS	NL=1000	200	200	220***	220***	170	170	140	140	
Calcium (ppm)	NS	NS	24	20.3 - 32.9	133	133	38	38 - 39	68	59 - 76	
Hardness (as CaCO3) (ppm)	NS	NS	106	92.6 - 134	582	582	270	235 - 305	272	241 - 303	
Magnesium (ppm)	NS	NS	8.4	8.4	65***	65***	14	13 - 14	26	23 - 29	2022***
pH (units)	NS	NS	8.4	8.2 - 8.7	7.3	7.3 - 7.4	8.3	8.2 - 8.3	8.2	8.2	
Potassium (ppm)	NS	NS	ND	ND	4.1***	4.1***	2.6	2.6	5	4.6 - 5.4	2022***
Radon (pCi/L)	NS	NS	ND	ND	389***	389***	ND	ND	ND	ND	2022***
Sodium (ppm)	NS	NS	30	30	89***	89***	46	46	105	93 - 117	2022***
1,4-Dioxane (ppb)	NS	NL=1	ND	ND	ND***	ND***	NA	NA	NA	NA	2022***
N-Nitrosodimethylamine (NDMA) (ppt)	3	NL=10	NA	NA	NA	NA	ND	ND	ND	ND	
tert-Butyl Alcohol (TBA) (ppb)	NS	NL=12	ND	ND	NA	NA	ND	ND	ND	ND	

All results meet standard.

KEY TO ABBREVIATIONS

PDWS = Primary Drinking Water Standards are MCLs, MRDLs, and Treatment Techniques TTs for contaminants that affect health, along with their monitoring and reporting requirements.

PHG = Public Health Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

MCLG = Maximum Contaminant Level Goal is 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. Environmental Protection Agency.

MCL = Maximum Contaminant Level is 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.

MRDLG = Maximum Residual Disinfectant Level Goal is the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG do not reflect the benefits of the use of disinfectants to control microbial contaminants.

MRDL = Maximum Residual Disinfectant Level is 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.

LRAA = Locational Running Annual Average. The running annual average based on monitoring location.

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

NL = Notification Level is a health based advisory level established by Division of Drinking Water (DDW) for chemicals in drinking water that lack maximum contaminant levels, but warrants notification.

NA = Not Applicable

NS = No Standard

ND = Monitored for, but Not Detected

NTU = Nephelometric Turbidity Units – used to measure cloudiness of drinking water.

TT = Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water.

ppb = parts per billion, or micrograms per liter (ug/l)

ppm = parts per million, or milligrams per liter (mg/l)

ppt = parts per trillion, or nanograms per liter (ng/l)

pCi/L = picocuries per liter

***** = secondary standard

****** = Highest Running Annual Average (RAA)

******* = Santa Monica Well #1 offline in 2023 for maintenance purposes. For reporting purposes this information is from 2021 or 2022.

umho/cm = micromhos per centimeter

<= = less than

(a) = SM Well #1 is pumped into a transmission line, is blended with Imported Surface Water and enters the system at 19th St. & Idaho Ave.

(b) = The City is not required to test for every parameter each year. If indicated, data is from a previous year.

(c) = The E. coli MCL is based on routine and repeat samples testing positive for coliforms and/or E. coli, or failure to collect required repeat samples. Fecal Coliform/E. Coli constitutes an acute MCL violation. No Level 1 Assessments or MCL violations occurred for 2022.

(d) = The MCL has been replaced with a treatment technique requiring agencies to optimize corrosion control. Results given are from first draw, at-the-tap monitoring performed every three years.

(e) = MWD has developed a flavor-profile analysis method that can more accurately identify odor occurrences.