

Your Trusted Community Utility

# WQR.23

City of Glendale Water & Power  
2022 Consumer Confidence Report

This information is very important. Please have someone translate it for you.

Esta informacion es muy importante. Por favor pidale a alguien que se lo tradusca.

Napakahalaga ang impormasyon na ito. Mangyaring ipasalin ninyo para sa inyong pang unawa.

Այս տեղեկությունը շատ կարևոր է: Խնդրում ենք, որ մեկին թարգմանել տաք այն:

यह जानकारी बहुत ही महत्वपूर्ण है। कृपया कसी से इसका अनुवाद करवा लीजिए।

이 정보는 매우 중요합니다. 누군가에게 번역해달라고 하십시오.

これは非常に重要な情報です。どなたかに翻訳をお願いしてください。

此資訊十分重要，請您找人幫您翻譯。

## Glendale Water and Power

Glendale Water and Power (GWP) water was established in 1914. GWP provides water service to almost all residential, commercial and industrial consumers located within the incorporated areas of the City. GWP is the retail provider of water service to all consumers in the city except for a small area in the northern portion served by Crescenta Valley Water District. GWP currently has approximately 34,498 service connections within 30.57 square miles. The potable water system has twelve main pressure zones and consists of 396.97 miles of water mains, 28 pumping stations, 28 reservoirs and tanks, and 2 treatment plants: Verdugo Park Water Treatment Plant and Glendale Water Treatment Plant.

[www.GlendaleCA.gov/WaterQualityReports](http://www.GlendaleCA.gov/WaterQualityReports)

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## City of Glendale Water & Power 2022 Consumer Confidence Report

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

The water delivered to you by Glendale Water & Power continuously passes tough State and Federal quality standards. This booklet is a detailed report on the water we delivered to you in 2022.

### State and Federal Regulation

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

### Customer Participation and Assistance

Comments from the public are welcome and may be presented at the Glendale Water & Power Commission meetings held the first Monday of each month, at 4:00PM, at 633 E. Broadway, Room 105 (MSB 105), Glendale, CA 91206. Please write to: Martin Manucharyan, Water Quality Manager, Water Quality Section, Glendale Water & Power 141 N. Glendale Ave., Room #420, Glendale, CA 91206 or call (855) 550-4497.

This report can also be downloaded on GWP's website  
[www.GlendaleCA.gov/WaterQualityReports](http://www.GlendaleCA.gov/WaterQualityReports)



### A Message from Mark Young

Glendale Water & Power continuously ensures the safety and reliability of the water served to the residents of Glendale. This past year California continued to face an unprecedented statewide water shortage. Our water staff worked diligently to maximize local groundwater production through the Glendale Water Treatment Plant, a local source of water that is part of an ongoing EPA Superfund groundwater clean-up project. Our residents and businesses stepped-up and cut-back their water use to help maintain a reliable water supply.

Our water quality staff continue to monitor and enforce the annual testing and compliance of over 2900 backflow prevention assemblies throughout the system. This year, we collected over 8000 water samples, and between our field staff and contract laboratory, we ran almost 50,000 water quality tests. Because of enhancements in our operational practices, we were able to implement innovative strategies that allowed us to maintain system disinfectant residuals while simultaneously reducing our overall use of chemical treatment. Our water continues to meet and exceed all regulatory standards that govern water quality.

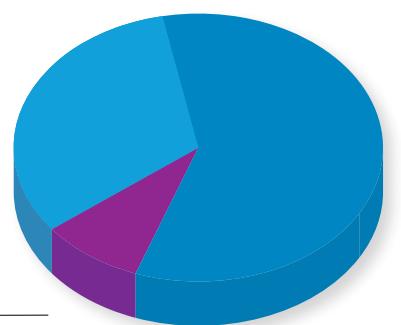
We are investing in the City's water infrastructure by replacing or rehabilitating aging infrastructure and building new assets. We completed another year and started the next phase of the Pipeline Management Program to replace and rehabilitate the City's water mains. This will help improve our water system delivery.

We would like to thank our community and the City's leadership in supporting GWP's continued commitment to maintaining a reliable water supply infrastructure and ensuring our residents and businesses always have fresh and clean water sources.

General Manager - GWP

### WHERE DOES OUR WATER COME FROM? (CALENDAR YEAR 2022)

**32%**  
7,503 AC-FT  
GROUNDWATER



**61%**  
14,202 AC-FT  
IMPORTED  
WATER

#### How much water is in an Acre-Foot?

An acre-foot = 325,851 gallons of water. That is enough to cover a football field one foot deep.

**7%**  
1,584 AC-FT  
RECYCLED  
WATER

### GLENDALE'S WATER SNAPSHOT

**35,000+**  
SERVICE CONNECTIONS

**33**  
LOCAL WATER  
STORAGE TANKS  
(BOTH POTABLE AND RECYCLED)

**417**  
MILES OF  
PIPELINE  
(BOTH POTABLE AND RECYCLED)

**CLOSE TO  
50,000**  
ANNUAL  
WATER TESTS

**7+**  
BILLION GALLONS OF  
WATER SERVED TO  
CUSTOMERS IN 2022

**185**  
MILLION GALLONS OF  
WATER STORAGE  
CAPACITY  
(BOTH POTABLE AND RECYCLED)



### Sources of Glendale's Water

In 2022 Glendale Water and Power delivered 7 billion gallons of potable water to our customers. 65% was purchased from the Metropolitan Water District, after being imported and treated from Northern California and the Colorado River. 35% comes from local groundwater sources extracted from the Verdugo and San Fernando Basins. Additionally, 1,584 acre-feet of recycled water was produced by the Los Angeles-Glendale Water Reclamation Plant in 2022. The plant's highly treated waste water meets or exceeds the water quality standards for recycled water and is used ONLY for irrigation and industrial processes.

### Important Information for People with Compromised Immune Systems

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/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 (1-800-426-4791).

### Explanation Regarding Contaminants

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 (1-800-426-4791).





## Cross-Connection Control Program

To protect drinking water systems from potential contamination, State law requires that utilities like GWP, maintain an effective Cross-Connection Control Program. A cross-connection can occur when a potable water line is directly or indirectly connected to an unknown supply. Regulations require installation of backflow prevention devices at all locations where actual or potential cross-connections exist. An unprotected or inadequately protected cross-connection could contaminate the City's drinking water supply. Examples of potential cross-connections include fire sprinkler systems, lawn irrigation, cooling systems and high pressure boilers. Implementing an effective cross-connection control program involves conducting facility inspections, evaluating the degree of potential hazard to public health, identifying the appropriate protection device, and providing training for onsite supervisors. Once devices are installed, there is a need for regular inspections and testing to ensure their proper operation as well as maintenance of accurate and up-to-date records. In 2021, GWP oversaw the testing and

## Nitrate

Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Glendale's water is tested at the source for contamination then treated to maintain levels below the MCL to ensure the water delivered to our customers is safe to drink.

## Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. GWP is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/lead>

maintenance of 2,927 backflow devices, 99% of which were in compliance with State regulations. Glendale has never experienced contamination due to a cross-connection.

## Recycled Water

The drought in the late 1980's paved the way for Glendale to develop an alternative source of water for non-potable uses. This alternative source is recycled water. Within Glendale, we have two separate water systems, one for drinking water and one for recycled water. Recycled water is domestic wastewater that undergoes extensive treatment. Glendale's supply of recycled water comes from the Los Angeles/Glendale Water Reclamation Plant which produces 14 million gallons of recycled water per day. Even though the end product of all of this treatment meets Federal and State drinking water standards, recycled water cannot be used for human consumption. Glendale's recycled water system helps minimize the impacts of drought and helps conserve our valuable sources of drinking water. Currently, recycled water use in Glendale is 6% of the total annual water used. GWP has 85 service connections that provide recycled water for public area irrigation, cooling towers, street cleaning, dust abatement, and flushing urinals and toilets in several dual-plumbed buildings. Glendale businesses and agencies using recycled water save significant costs over the use of drinking water. As the importance of water conservation becomes greater than ever, increasing our use of recycled water will improve our chances of meeting our water conservation goals while still meeting the water needs of all our customers. This will also reduce the costs of purchasing imported water and help Glendale become less dependent on imported sources of water.

## Programs to Help Customers Save Water

Glendale's water supply comes from a diverse and resilient portfolio of sources, and GWP's team is always working to keep the supply reliable and to operate the water system efficiently. The total amount of water needed every year depends on you. GWP offers various programs and services aimed at helping customers conserve water.

### Smart Home Upgrade Program

Helps customers save energy and water through a home survey and the installation of energy and water saving devices, all at no cost. To schedule an appointment with our certified contractor Richard Heath and Associates (RHA) call 1-800-263-9313 or visit [www.Glendaleca.gov/gwphomeupgrade](http://www.Glendaleca.gov/gwphomeupgrade)

### The WaterInsight Portal

This portal gives you the ability to view your near real-time water usage, check for potential water leaks, sign up for water leak alerts, compare your usage, and view water saving tips. Visit [www.Glendaleca.gov/homewaterreports](http://www.Glendaleca.gov/homewaterreports)

### Rebates Offered by GWP

Customers save money on energy and water bills by receiving rebates on energy and water efficient products. Visit [www.Glendaleca.gov/rebates](http://www.Glendaleca.gov/rebates)

### Rebates Offered by Metropolitan Water District (MWD)

MWD offers rebates for water-saving devices and sustainable landscaping. Rebates are available for water-saving equipment like high-efficiency toilets and washing machines, rain barrels and cisterns, irrigation controllers, soil moisture sensor systems and rotating sprinkler nozzles. Visit [www.socalwatersmart.com](http://www.socalwatersmart.com)

### Turf Replacement Program

Through the Turf Replacement Program, homeowners and commercial customers are eligible to receive \$2 per square foot rebate for replacing turf with drought tolerant and native plants, retrofitting to a drip/efficient irrigation system, and capturing rainwater. Visit [www.Glendaleca.gov/turfreplacement](http://www.Glendaleca.gov/turfreplacement)

### GWP's Energy & Water Efficiency Marketplace

Our online shop for energy and water efficient products at discounted prices! Browse through and purchase a variety of different LED lighting fixtures, advanced power strips, smart thermostats, water fixtures, and more that will help you save money and use water and energy wisely. Discounts and special deals are offered each month. Visit [www.GWPmarketplace.com](http://www.GWPmarketplace.com)

### Waterwise Gardening Website

Need help planting a CA Friendly landscape? The Waterwise Gardening website gives you access to over 200 photos of local gardens with CA friendly landscapes. Visit [www.MySmartGarden.com/GlendaleCA](http://www.MySmartGarden.com/GlendaleCA)



Copper Basin Reservoir, one of Metropolitan Water District's four reservoirs along the Colorado River Aqueduct.

## Abbreviations

CU = Color Units	NA = Not Analyzed
DLR = Detection Limits for purposes of reporting	ND = None Detected
DPH = Department of Public Health	NL = Notification Level
DDW = Division of Drinking Water	NS = No standard
MCL = Maximum Contaminant Level	NTU = Nephelometric Turbidity Units
MCLG = Maximum Contaminant Level Goal	pCi/L = picoCurries per liter
mg/L = milligrams per liter	ppb = parts per billion
MRDL = Maximum Residual Disinfectant Level	ppm = parts per million
MRDLG = Maximum Residual Disinfectant Level Goal	ppt = parts per trillion
MWD = Metropolitan Water District of Southern California	ppq = parts per quadrillion
TT = Treatment Technique	TON = Threshold Odor Number

## Footnotes

- a. Aluminum has a secondary MCL of 200 ppb.
- b. Standard is for Radium -226 and -228 combined. Last tested in 2020, results (ND).
- c. Total coliform MCL: No more than 5% of the monthly samples may be total coliform-positive.
- d. Lead and Copper Rule compliance based on 90th percentile of all samples being below the action level. Samples were taken from 50 customer taps. Testing is required every three years. This data was collected in 2020. Next testing is in 2023. In 2018, GWP conducted lead testing at 25 schools per the request of Glendale Unified School District.
- e. Copper has a secondary MCL of 1000 ppb.
- f. Analysis was on water before blending with MWD supply.
- g. Compliance is based on Locational Running Annual Average (LRAA) for the stage 2 DBPR. "Citywide Average" represents highest LRAA.
- h. Hardness in grains/gallon can be found by dividing ppm by 17.1.
- i. For GWP sources, data represents the amount of naturally occurring fluoride. For MWD sources, data is after fluoride added at MWD treatment plant.
- j. There is currently no MCL for Chromium 6. The previous MCL of 0.010 mg/L was withdrawn in September of 2017. The State of California is currently working to establish a new MCL.
- k. Water from the Foothill Well is blended with system water; actual level of nitrate in water served ranged between 0.3 and 7.7 ppm, with an average of 3.11 ppm. Water from wells 3, 4 and 6 are blended together to reduce levels of nitrate in water; actual levels after blended range between 0.88 and 5.2 ppm, with an average of 3.04 ppm.
- l. Foothill Well has been offline since August 13, 2022.
- m. AI < 10.0 = Highly aggressive and very corrosive water. AI >/= 12 = Non-aggressive water. AI (10.0 - 12) - Moderately aggressive water.
- n. Compliance was based on RAA. Bromate was tested at effluent of Jensen (mi) and Weymouth (mii) Treatment Plants where ozone is used as a disinfectant.
- o. 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. Radiological sampling were taken from wells 3,4 an 6 in June 2020. Foothill Well was last sampled in February 2022.
- p. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

DETECTED CONTAMINANTS AT GLENDALE'S WATER SOURCES													
	Units	State MCL	PHG or [MCLG]		MWD Weymouth Plant	MWD Jensen Plant	Glendale Water Treatment Plant	Glorietta Well 3	Glorietta Well 4	Glorietta Well 6	Foothill Well (I)	Major Sources of Contaminants in Drinking Water	
<b>ORGANIC CHEMICALS</b>													
Tetrachloroethylene (PCE)	ppb	5	0.06	Range Average	ND	ND	ND - 54.92	1.6 - 1.9 1.7	0.55 - 0.65 0.59	1 - 1.2 1.1	ND	Discharge from factories, dry cleaners, and auto shops (metal degreaser)	
<b>INORGANIC CHEMICALS</b>													
Aluminum (a)	ppm	1	0.6	Range Average	58 - 240 156	ND - 81 62	ND	ND	ND	ND	ND	Erosion of natural deposits; residue from some surface water treatment processes	
Barium	ppm	1	2	Range Average	107	ND	0.06 - 0.08 0.07	0.13	0.16	0.11	ND	Discharges of oil drilling waste and from metal refineries; erosion of natural deposits	
Chromium, Total	ppb	50	[100]	Range Average	ND	ND	2.5 - 11 5.5	ND	ND	ND	1.3	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits	
Fluoride (i)	ppm	2	1	Range Average	0.6 - 0.8 0.7	0.4 - 0.8 0.7	0.36	0.19 - 0.21 0.19	0.21 - 0.22 0.21	0.18 - 0.22 0.21	0.18 - 0.20 0.19	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	
Nitrate (As N) (k)	ppm	10	10	Range Average	ND	0.9	4.6 - 6.3 5.3	7.7 - 10 9.1	8.2 - 8.8 8.5	8.4 - 9.7 8.9	8.7 - 9.4 9.0	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	
<b>RADIOLOGICALS (b)</b>													
Gross Alpha	pCi/L	15	[0]	Range Average	ND	ND	NA	4.9	12	9.2	3.5	Erosion of natural deposits	
Particle Activity													
Gross Beta	pCi/L	50	[0]	Range Average	4 - 7 6	ND-5 ND	NA	NA	NA	NA	NA	Decay of natural and man-made deposits	
Particle Activity													
Uranium	pCi/L	20	0.43	Range Average	1 - 3 2	ND - 3 ND	NA	7.1	11	10	3.4	Erosion of natural deposits	
<b>REGULATED CONTAMINANTS WITH SECONDARY MCLs</b>													
Chloride	ppm	500	NS	Range Average	98 - 105 102	67 - 73 70	ND	130 - 180 145	160 - 180 171	120 - 150 132	62 - 67 64	Runoff/leaching from natural deposits; seawater influence	
Color	cu	15	NA	Range Average	1	1	NA	ND	ND	ND	ND	Naturally occurring organic materials	
Iron	ppb	300	NA	Range Average	ND	ND	ND	ND - 37 8	ND	ND	ND - 110 29	Leaching from natural deposits; industrial waste	
Manganese	ppb	50	NL = 500	Range Average	ND	ND	ND - 2 2	ND	ND	ND	ND - 2.2 0.3	Leaching from natural deposits	
Odor	TON	3	NS	Range Average	3	3	NA	ND	ND	ND	1	Naturally occurring organic materials	
Specific Conductance	uS/cm	1600	NS	Range Average	964 - 1020 992	557 - 572 564	910	1100 - 1200 1118	750 - 1300 1239	1000-1300 1082	750 - 1100 799	Substances that form ions when in water; seawater influence	
Sulfate	ppm	500	NS	Range Average	212 - 232 222	71 - 80 76	140 - 180 165	160 - 190 175	170 - 190 180	160 - 180 165	93 - 99 96	Runoff/leaching from natural deposits	
Total Dissolved Solids (TDS)	ppm	1000	NS	Range Average	632 - 643 638	332 - 335 334	530 - 660 578	670 - 740 704	750 - 800 778	640 - 740 665	440 - 480 453	Runoff/leaching from natural deposits; seawater influence	
Turbidity (p)	NTU	5	NA	Range Average	ND	ND	ND - 0.25 0.06	0.51	0.14	ND	0.68	Soil runoff	

## UNREGULATED CONTAMINANTS DETECTED AT GLENDALE'S WATER SOURCES

	Units	State MCL	State DLR or [PHG]		MWD Weymouth Plant	MWD Jensen Plant	Glendale Treatment Plant	Glorietta Well 3	Glorietta Well 4	Glorietta Well 6	Foothill Well	Major Sources of Contaminants in Drinking Water
Chromium VI	ppb	(j)	[0.02]	Range	ND	ND	2.6 - 9.2 5.9 (f)	0.42	0.34	0.39	1.4	Runoff and leaching from natural deposits; discharge from industrial waste factories.
				Average								

## LEAD AND COPPER RULE (c)

	Units	Action Level	PHG	No. of Samples	90th Percentile	No. of sites exceeding action level	Major Sources of Contaminants in Drinking Water
<b>SAMPLES FROM CUSTOMERS' TAPS (COLLECTED EVERY 3 YEARS)</b>							
Cooper (e)	ppb	1.3	0.3	50	220	0	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	ppb	15	0.20	50	ND	1	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

## CITYWIDE SAMPLING

	Units	State MCL	MCLG [MRDLG]	Citywide Average	Range	Major Sources of Contaminants in Drinking Water
<b>SAMPLES FROM DISTRIBUTION SYSTEM</b>						
Total Coliform Bacteria	%	5.0 (b)	0	0.60	0 - 3.64	Naturally present in the environment
Total Trihalomethanes (TTHM) (g)	ppb	80	NA	28	12 - 44	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (g)	ppb	60	NA	4.5	ND - 8.7	By-product of drinking water disinfection
Total Chlorine Residual	ppm	[4]	[4]	1.41	0 - 3.7	Drinking water disinfectant added for treatment
Bromate (n)	ppb	10	(0.1)	7.2 (ni)	ND - 15	By-product of drinking water disinfection
	ppb	10	(0.1)	ND (nii)	ND - 7.6	

## WATER CONSTITUENTS OF INTEREST TO THE PUBLIC

	Units		MWD Weymouth Plant	MWD Jensen Plant	Glendale Water Treatment	Glorietta Well 3	Glorietta Well 4	Glorietta Well 6	Foothill Well
Alkalinity	ppm	Range	126 - 128	84	180	170 - 180	160 - 210	170 - 210	150 - 170
		Average	127			176	200	175	160
Calcium	ppm	Range	68 - 71	32 - 34	100	82 - 130	130 - 140	110 - 120	79 - 120
		Average	70			119	132	114	85
Corrosivity (m) Aggressive Index	AI	Range	12.5	12.1	13.1	12 - 13	12 - 13	12 - 13	11.9 - 12.3
		Average				12.2	12.4	12.4	12.0
Corrosivity Saturation Index	SI	Range	0.56 - 0.63	0.27 - 0.32	7.1	7.0 - 7.3	6.9 - 7.1	7.1 - 7.2	7.1 - 7.4
		Average	0.60			7.1	7.0	7.1	7.2
Hardness (h)	ppm	Range	277 - 281	107 - 110	360	320 - 520	520 - 560	430 - 480	310 - 460
		Average	279			108	464	531	449
Magnesium	ppm	Range	25 - 26	6.2 - 7.5	28	28 - 47	48 - 50	38 - 43	27 - 42
		Average	26			6.8	42	40	29
pH	pH Units	Range	8.1	8.2 - 8.3	8.0 - 8.5	6.4 - 7.8	6.1 - 7.8	6.1 - 8.0	6.3 - 7.6
		Average				8.3	7.1	7.16	7.1
Potassium	ppm	Range	4.5 - 4.8	2	4.3	3.4 - 4.4	4.0 - 4.2	3.3 - 3.9	3.5 - 4.4
		Average	4.6			3.6	4.1	3.5	4.2
Sodium	ppm	Range	98 - 103	71 - 72	53	33 - 57	54 - 57	46 - 62	32 - 48
		Average	100			72	50	55	34
Total Organic Carbon (TOC)	ppm	Range	1.7 - 2.6	1.0 - 1.4	NA	NA	NA	NA	NA
		Average	2.4			1.5	NA	NA	NA



## Water Quality Terms in This Report

### 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. Environmental Protection Agency.

### Public Health Goal (PHG):

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

### Primary Drinking Water Standard (PDWS):

MCLs and MRDLs and treatment techniques (TTs) for contaminants that affect health along with their monitoring and reporting requirements.

### 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.

### 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.

## Source 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, which 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.



### Why do GWP crews let water run down the street?

One way GWP maintains water quality is by cleaning pipelines using a flushing process to clean out sediment and minimize the potential for stagnant water. This process improves disinfectant residuals and reduces the chances of bacterial growth in water distribution mains. It also helps to reduce aesthetic concerns like taste, odor and color which may arise in areas of low water use, such as cul-de-sacs with deadend mains. Pipeline flushing is an important, routine process and represents a use of water that is beneficial to the health and well-being of the customers it directly affects.

### My water often looks cloudy when taken from a faucet and then clears up. Why?

The cloudy or milky water is caused by tiny air bubbles. After a while, the bubbles rise to the top and dissipate into the air. The cloudiness occurs more often in the winter when the drinking water is cold. Air in water does not pose a health risk.

### Why does my water smell like a rotten egg?

The most common cause of the rotten egg or sewage smell is from the gases released by bacterial growth in drain pipes. When you run your faucets, the water enters the drain pipe and forces these gases out, resulting in the smell. To determine if the smell is coming from the drain or the water, fill a glass with water, take it into another room and smell the water in the glass. If you do not smell the same odor from the water in the glass, then the odor is coming from the drain. Cleaning the drain with a mild bleach solution should resolve the problem.

### Why does my water smell like chlorine?

State and Federal regulations require that water utilities, including GWP, maintain a disinfectant residual throughout the distribution system. The purpose is to prevent water-borne illnesses by suppressing the growth of bacteria and other potential contaminants. GWP, like many other utilities, uses chlorine and chloramines to comply with these requirements. You may, at times, experience a chlorine taste or odor.



## FREQUENTLY ASKED QUESTIONS

### Why does my water leave a white residue on glass and metal surfaces?

The white, crusty residue sometime left behind when water dries on a surface is a product of water hardness. Hardness is basically an indication of the presence of minerals in water. Minerals are naturally occurring and do not pose a health risk. Mineral deposits, usually calcium, may form in larger quantities in water that is either too hot or too cold; this is why customer frequently see deposits on tea kettles and in ice cubes. A mild vinegar solution is usually sufficient to clean fresh mineral deposits on glass and metal surfaces.

### My drinking water is reddish brown. Why?

Reddish-brown water can be caused by rust dislodged from the drinking water pipes in the street, those leading to, or inside, your home, or from your hot water tank. If you are having trouble and your neighbors are not, then the color is likely originating somewhere in your plumbing system. Let your water run until it clears up before using it.

### Should I install a home water treatment device?

This is a personal decision. These devices are not needed to make the water meet federal, state, or local standards. In fact, if the devices are not properly maintained, they may cause problems of their own. You may consider a home treatment device if you desire to change the taste of your water.

### How is the inside of a pipe cleaned after a water main break?

After the work is done, the inside of the pipes are disinfected with a chlorine solution to kill off germs. In some cases, water is flushed through the main at a high velocity by opening a fire hydrant which also allows the water main to be cleaned.