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City of Glendale Water & Power 2021 Water Quality Report to Our Customers

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 महत्त्वपूरण है। कृपया कसिी से इसका अनुवाद करवा लीजए।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 33,860 service connections within 31.6 square miles. The potable water system has twelve main pressure zones and consists of 383 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.

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City of Glendale Water & Power 2021 Water Quality Report to Our Customers

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 2021.

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: James Saenz, Water Quality Manager, Water Quality Section, Glendale Water & Power 141 N. Glendale Ave., Room #420, Glendale, CA 91206 or call (818) 548-2011. This report can also be downloaded on GWP's website www.GlendaleCA.gov/WaterQualityReports

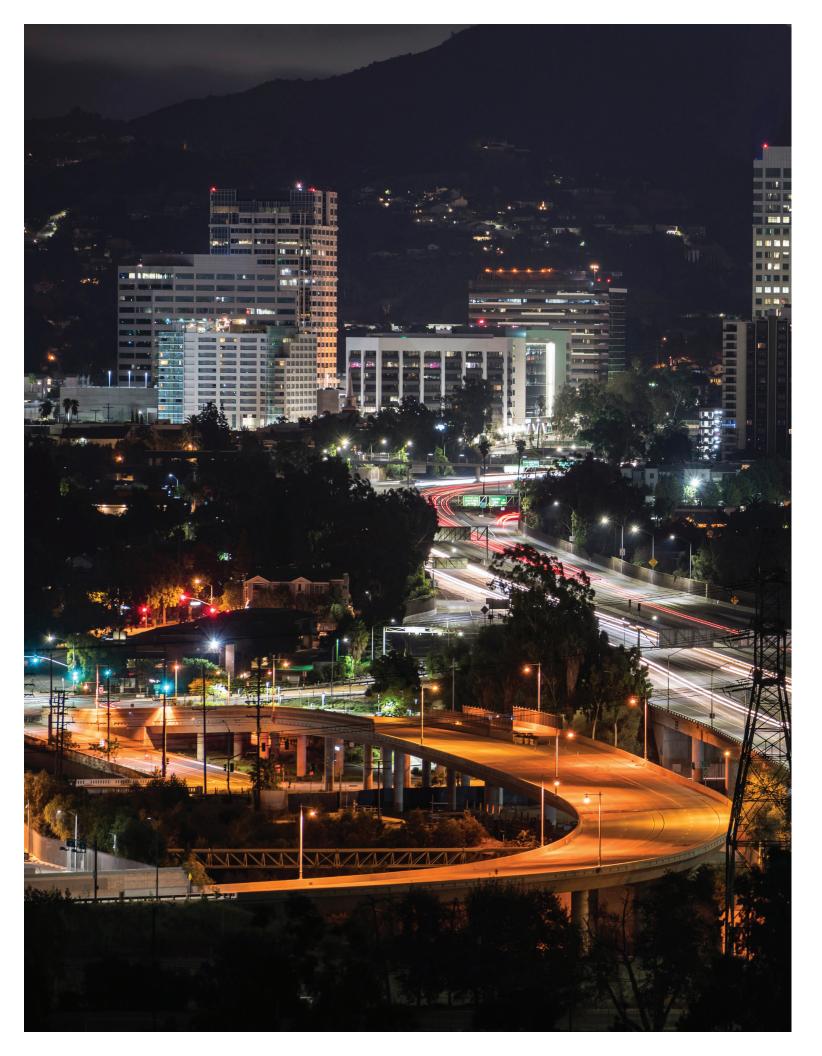














Sources of Glendale's Water

In 2021 Glendale Water and Power delivered 7 billion gallons of potable water to our customers. 63% was purchased from the Metropolitan Water District, after being imported and treated from Northern California and the Colorado River. 37% comes from local groundwater sources extracted from the Verdugo and San Fernando Basins. In addition, 7% of total water used in 2021 was recycled water delivered by the Los Angeles-Glendale Water Reclamation Plant. 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. 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 (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).



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.

Disinfection By-Products, which include Trihalomethanes (THMs) and Haloacetic Acids (HAAs), are generated by the interaction between naturally occurring matter and disinfectants, such as chlorine.



A Message from Michael De Ghetto, Chief Assistant General Manager - Water

Glendale Water & Power (GWP) is committed to the safety of the water served to the residents and businesses in Glendale and in 2021 the City's water continued to meet all federal, state and local water guality standards. The dedication, personal commitment, and technical expertise of Glendale Water & Power's water professionals continued to ensure the safety of the water served to the residents of Glendale during the COVID-19 pandemic. As designated essential workers by the State and Federal Government, Water Quality Section staff not only continued to maintain the safety of Glendale's drinking water, they also continued to improve it through the continued use of a portable chloramination system that can be moved to different facilities as needed to improve the chloramine residual. GWP's Water Engineering team continued to oversee the operation of the Glendale Water Treatment Plant (GWTP). To ensure the continued safety of Glendale's water, GWP's staff take more than 5,700 water quality samples every year and they monitor the testing and compliance of over 2,800 backflow prevention assemblies that help ensure contamination does not enter the water system. In addition, GWP is committed to the environment and has been reducing the City's reliance on imported water through the use of recycled water system which has been in operation since 1978, and by cleaning up local groundwater to drinking water standards for over 20 years at the GWTP as part of an EPA Superfund clean-up project. By having this treatment plant in place, GWP has been able to protect the City's water supply even as new types of contaminants are discovered in the environment. GWP is Glendale owned and Glendale focused, and this focus extends to GWP's team of water professionals and the work they do to ensure the quality and sustainability of all of the City's sources of water.



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 crossconnections exist. An unprotected or inadequately protected cross-connection could contaminate the City's drinking water supply. Examples of potential crossconnections 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

maintenance of 2927 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 1980s 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.

FREQUENTLY ASKED QUESTIONS

WATER CONSTITUENTS

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.

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 maintains disinfectant residuals and reduces the chances of bacterial growth in the water distribution system. Pipeline cleaning is an important, routine process and a non-wasteful, beneficial use of water.

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.

	Units		MWD Weymouth Plant	MWD Jensen Plant	Glendale Water Treatment	Glorietta Well 3	Glorietta Well 4	Glorietta Well 6	Foothill Well
Alkalinity	ppm	Range Average	123 - 128 126	86 - 97 92	200	170 - 180 179	200 - 210 208	170 - 180 174	160
Calcium	ppm	Range Average	64 - 70 67	27 - 32 30	100	110 - 120 118	130 - 140 131	99 - 120 112	70 - 81 75
Corrosivity (i) Aggressive Index	AI	Range Average	12.4 - 12.5 12.4	12.2	12.9	11.9 - 12.4 12.2	12.1 - 12.7 12.4	12.0 - 12.4 12.3	11.9 - 12.2 12.1
Corrosivity (i) Saturation Index	SI	Range Average	0.52 - 0.61 0.56	0.35 - 0.40 0.38	7.1	7.0 - 7.1 7.0	6.9 - 7.0 6.9	7.0 - 7.1 7.1	7.2 - 7.3 7.3
Hardness (g)	ppb	Range Average	270 - 273 272	110 - 133 122	360	450 - 480 471	520 - 560 527	390 - 470 446	280 - 310 295
Magnesium	ppb	Range Average	25 - 26 26	12 - 13 12	NA	42 - 44 43	47 - 50 48	35 - 42 40	25 -27 26
рН	pH Units	Range Average	8.1	8.3 - 8.4 8.3	7.9 - 8.4 8.2	6.2 - 7.5 7.1	6.2 - 7.7 7.1	6.3 - 7.8 7.2	6.2 - 7.6 7.2
Potassium	ppm	Range Average	4.4 - 4.7 4.6	2.6 - 2.7 2.7	3.9	3.3 - 3.5 3.4	4.0 - 4.2 4.1	3.2 - 3.5 3.4	4.1 - 4.3 4.2
Sodium	ppm	Range Average	95 - 101 98	61 - 68 64	51	50 - 52 51	54 - 58 55	41 - 47 46	29 - 32 31
Total Organic Carbon (TOC)	ppm	Range Average	1.8 - 2.5 2.4	1.1 - 2.0 2.0	NA	NA	NA	NA	NA



COVID - 19

According to the Centers for Disease Control (CDC), the virus that causes COVID -19 has not been detected in treated drinking water and there is no evidence that it can spread to people by drinking treated water. COVID -19 is spread mainly through close contact from person-to person and can be avoided by following the CDC's guidelines at cdc.gov/COVID19. The US Environmental Protection Agency (EPA) recommends the continued use of drinking tap water as usual. The EPA's long-standing drinking water regulation established treatment requirements for public water systems in order to prevent waterborne pathogens, such as viruses, from contaminating drinking water. These treatment requirements include adding chlorine to remove or kill pathogens before they reach customers. GWP diligently complies with all state and federal water quality standards, and actively monitors disinfectant levels throughout the system to ensure that customers receive water that is safe to drink.

		PUBLIC
		PUBLIC

UNREGULATED CONTAMINANTS DETECTED AT GLENDALE'S WATER SOURCES

	Units	State MCL	State DLR or [PHG]		MWD Weymouth Plant	MWD Jensen Plant	Glendale Treat- ment Plant	Glorietta Well 3	Clorietta Well 4	Clorietta Well 6	Foothill Well	Major Sourc- es of Contami- nants in Drinking Water
Chromium VI	ddd	(n)	[0.02]	Range Average	ND	ND	3.2 - 9.9 5.5 (e)	0.41	0.34	0.40	0.59	Runoff and leaching from natural deposits; discharge from industrial waste factories.

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			
SAMPLES FRO	OM CUST	OMERS' TA	PS (COLLE		Y 3 YEARS)					
Cooper (d)	ppb	1.3	.3	50	220	0	Internal corrosion of household pipes; erosion of natural deposits; wood preservative leaching.			
Lead	ppb	15	0.20	50	ND	1	Internal corrosion of household pipes; discharges from industrial manufacturer; erosion of natural deposits			

CITYWIDE SAMPLING											
	Units	State MCL	MCLG [MRDLG]	Citywide Average	Range	Major Sources of Contaminants in Drinking Water					
SAMPLES FROM DISTRIBUTION SYSTEM											
Total Coliform Bacteria	%	5.0 (b)	0	0.38	0 - 1.3	Naturally present in the environment					
Total Trihalomethanes (TTHM) (f)	ppb	80	NS	25	9.7 - 48	By-product of drinking water disinfection					
Haloacetic Acids (HAA5) (f)	ppb	60	NS	4.3	ND - 6.2	By-product of drinking water disinfection					
Total Chlorine Residual	ppm	[4]	[4]	1.46	0.00 - 3.0	Drinking water disinfectant added for treatment					
Bromate (j)	ppb ppb	10 10	(0.1) (0.1)	4.5 (mi) ND (mii)	1.2 - 9.8 ND - 7.0	By-product of drinking water ozonation					



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.

Abbreviations

CU = Color Units

DLR = Detection Limits for purposes of reporting

DPH = Department of Public Health

DDW = Division of Drinking Water

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

mg/L = milligrams per liter

MRDL = Maximum Residual Disinfectant Level

MRDLG = Maximum Residual Disinfectant Level Goal

MWD = Metropolitan Water District of Southern California

Footnotes

- a. Aluminum has a secondary MCL of 200 ppb.
- b. Total coliform MCL: No more than 5% of the monthly samples may be total coliform-positive.
- c. 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.
- d. Copper has a secondary MCL of 1000 ppb.
- e. Analysis was on water before blending with MWD supply
- f. Compliance is based on Locational Running Annual Average (LRAA) for the stage 2 DBPR. "Citywide Average" represents highest LRAA.
- g. Hardness in grains/gallon can be found by dividing ppm by 17.1.
- h. For GWP sources, data represents the amount of naturally occuring fluoride.
 For MWD sources, data is after fluoride added at MWD treatment plant.
 Glendale's distribution system fluoride levels were monitored in 2021 - range 0.42 ppm - 0.76 ppm with an average of 0.61 ppm.

NA = Not Analyzed
ND = None Detected
NL = Notification Level
NS = No standard
NTU = Nephelometric Turbidity Units
pCi/L = picoCurries per liter
PHG = Public Health Goal
ppb = parts per billion

ppm = parts per million

TT = Treatment Technique

TON = Threshold Odor Number

uS/cm = microsiemens per centimeter

i. Al < 10.0 = Highly aggressive and very corrosive water. Al >/= 12 = Non-aggressive water. Al (1.0 - 11.9) - Moderately aggressive water.

- j. 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.
- k. While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Evirontmental Protection Agency continues to research the health oeffects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.
- I. 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 was last conducted in June 2020.
- m. 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.
 n. There is no MCL for Chromium VI. The
- previous MCL of 10 ppb was withdrawn on September 11, 2017.

DETECTED CONTAMINANTS AT GLENDALE'S WATER SOURCES												
	Units	State MCL	PHG or [MCLG]		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
ORGANIC CHEMI	CALS											
Tetrachloroethylene (PCE)	ppb	5	0.06	Range Average	ND	ND	ND	1.6 - 1.8 1.7	ND - 0.59 0.43	0.99 - 1.2 1.1	ND	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
INORGANIC CHEMICALS												
Aluminum (a)	ppb	1	0.6	Range Average	ND - 240 148	ND - 120 64	ND - 88 1	ND	ND	ND	180	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (k)	ppb	10	0.004	Range Average	ND	ND	ND	ND	ND	ND	1.2	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium	ppm	1	2	Range Average	110	ND	0.065 - 0.092 0.077	0.14	0.16	0.11	0.077	Discharges of oil drilling waste and from metal refineries; erosion of natural deposits
Chromium, Total	ppb	50	[100]	Range Average	ND	ND	ND - 7.5 5.2	ND	ND	ND	1.6	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (h)	ppm	2	1	Range Average	0.6 - 0.9 0.7	0.6 - 0.8 0.7	0.31	0.16 - 0.20 0.19	0.18 - 0.22 0.21	0.18 - 0.24 0.21	0.17 - 0.27 0.21	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (As N)	ppm	10	10	Range Average	ND	ND	4.8 - 5.8 5.2	9.1 - 9.8 9.4	8.3 - 8.9 8.6	7.3 - 9.6 9.0	6.3 - 9.0 8.0	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
RADIOLOGICALS	(I)											
Gross Alpha Particle Activity	pCi/L	15	[0]	Range Average	ND	ND	ND	4.9	12	9.2	NA	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50	[0]	Range Average	4 - 6 5	ND	ND	NA	NA	NA	NA	Decay of natural and man-made deposits
Uranium	pCi/L	20	0.43	Range Average	1-3 2	ND - 3 ND	ND	7.1	11	10	NA	Erosion of natural deposits
REGULATED CON		ANTS W	ITH SEC	ONDAR	Y MCLS							
Chloride	ppm	500	NS	Range Average	95 - 97 96	65 - 80 72	56 - 67 63	140 - 150 143	160 - 170 168	100 - 140 129	48 - 65 58	Runoff/leaching from natural deposits; seawater influence
Color	cu	15	NS	Range Average	1	1-2 2	ND	ND	ND	ND	ND	Naturally occurring organic materials
Iron	ppb	300	NS	Range Average	ND	ND	ND	ND - 160 39	ND	ND - 340 26	ND - 300 60	Leaching from natural deposits; industrial waste
Manganese	ppb	50	NL = 500	Range Average	ND	ND	ND - 38 1.2	ND	ND	ND - 2.4 2	ND - 110 20.3	Leaching from natural deposits; industrial waste
Odor	TON	3	NS	Range Average	1	1	ND	ND	ND	ND	ND	Naturally occurring organic materials
Specific Conductance	uS/cm	1600	NS	Range Average	962 - 965 964	519 - 598 558	880	1100 - 1200 1108	1200 - 1300 1267	940 - 1100 1078	670 - 740 710	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	NS	Range Average	217 - 221 219	61 - 72 66	150 - 180 162	160 - 180 170	180	140 - 170 162	74 - 93 86	Runoff/leaching from natural deposits; industrial waste
Total Dissolved Solids (TDS)	ppm	1000	NS	Range Average	599 - 609 604	298 - 302 300	550 - 610 582	680 - 760 712	760 - 820 788	580 - 720 673	410 - 480 442	Runoff/leaching from natural deposits; seawater influence
Turbidity (m)	NTU	5	NS	Range Average	ND	ND	ND - 0.34 0.17	2	ND	ND	4.1	Soil runoff