

A Message from General Manager Stephen M. Zurn

As California faces ongoing challenges related to weather, resource availability, and regulatory restrictions, Glendale Water & Power continues its focus on operating efficiently, effectively, and in an environmentally friendly manner to provide our customers with the highest level of service.

California's severe drought has created extraordinary challenges for utilities throughout the state. Both urban and agricultural water usage is impacted by the drought's effects on groundwater and reservoir levels. Conservation and resource planning are at the forefront as we face the prospect of ongoing supply issues and potential cutbacks in water deliveries.

In FY 2014, GWP conducted an extensive multi-media community outreach campaign to communicate the seriousness of the drought and the importance of conservation. GWP also made significant progress towards completing research for hexavalent chromium removal prior to the State's adoption of an MCL level for hexavalent

chromium levels in drinking water. We also successfully completed the Adam's Hill Water Main Replacement Project and improved the water delivery and the fire protection in that area. Across town GWP crews worked hard to complete the Canada Street cleaning and lining project that will improve the water quality in that area. As we look towards the future many more water quality projects are on schedule that will ensure high quality water is delivered to our customers in a reliable manner well into the future.

As GWP continues to work diligently in its efforts to be a responsible and efficient service provider we are grateful for the cooperation from our community and City leaders. Together, we will maintain our commitment to a sustainable future and ensure that GWP remains strong and viable.

Thank you for your support.



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 USEPA.

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 CalEPA.

Primary Drinking Water Standard (PDWS):

MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment 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, 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 storm water 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 storm water runoff, and residential uses.

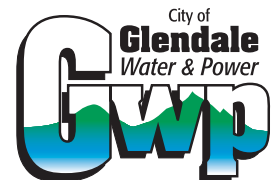
Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can, come from gas stations, urban storm water runoff, agricultural application, and septic systems.

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.

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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).



Your Trusted Community Utility

Glendale Water & Power
141 North Glendale Ave., Level 4
Glendale, CA 91206

WQR.15

City of Glendale Water & Power 2014 Water Quality Report to Our Customers

Follow us on:

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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 traduzca.

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

此資訊十分重要。請您找人幫您翻譯。

यह सूचना अत्यंत ही महत्त्वपूर्ण है। कृपया किसी से इसका अनुवाद करा लीजिए।

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。

이 정보는 매우 중요합니다. 누군가에게 번역해달라고 하십시오.

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

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. USEPA/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).

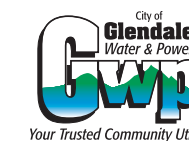
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City of Glendale Water & Power Water Quality Report for 2014

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 2014.



State and Federal Regulation

In order to ensure that tap water is safe to drink, the USEPA and State Water Resource Control Board, Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW 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, in the Glendale City Council Chambers, 613 E. Broadway. Please write to: James Saenz, Water Quality Manager, Water Quality Section, Glendale Water & Power 141 N. Glendale Ave., Level 4, Glendale, CA 91206 or call (818) 548-3962. This report can also be downloaded on GWP's website www.GlendaleWaterAndPower.com

DETECTED CONTAMINANTS AT GLENDALE'S WATER SOURCES											
	Units	Notification Level	State DLR [PHG]		MWD Weymouth Plant	MWD Jensen Plant	Glendale Treatment Plant (c)	Verdugo Park Treatment Plant (o)	Glorietta Wells	Foothill Well	Major Sources of Contaminants in Drinking Water
CONTAMINANTS WITH NO MCLs											
Boron	ppb	1,000	100	Range Average	110 110	160 160	120 - 200 160	-	NA	NA	Runoff/leaching from natural deposits; industrial wastes
Chlorate (k)	ppb	800	20	Range Average	21 - 105 102 36		100 - 320 166	-	130	NA	By-product of drinking water chlorination; industrial processes
Chlorodifluoromethane	ng/L	[80]	NS	Range Average	NA	NA	NA	-	180	NA	Used as a refrigerant, solvent, and in fluorocarbon resins
Molybdenum	ppb	[1]	NS	Range Average	NA	NA	2.9 - 7.5 5	-	4.1	NA	Naturally-occurring element; commonly used as chemical reagent
N-Nitrosodimethylamine (NDMA)	ppt	10	2	Range Average	ND - 5.0 ND - 5.0	ND - 5.0 2.2	ND	-	NA	NA	By-product of drinking water chloramination; industrial processes
N-Nitrosodiethylamine (NDEA)	ppb	10	0.005	Range Average	NA	NA	ND - 0.002 0.002	-	NA	NA	By-product of drinking water chloramination; industrial processes
N-Nitroso-N-propylamine (NDPA)	ppb	10	0.007	Range Average	NA	NA	ND - 0.002 0.002	-	NA	NA	By-product of drinking water chloramination; industrial processes
Vanadium	ppb	50	3	Range Average	ND	4.8 4.8	4.3 - 9.2 5.5	-	NA	NA	Naturally-occurring; industrial waste discharge

LEAD AND COPPER RULE (e)							
	Units	Action Level	PHG	No. of Samples	90th Percentile	No. of sites exceeding action level	Major Sources of Contaminants in Drinking Water
SAMPLES FROM CUSTOMERS' TAPS (COLLECTED EVERY 3 YEARS)							
Copper (f)	ppb	1300	170	51	260	0	Internal corrosion of household pipes; erosion of natural deposits; wood preservative leaching
Lead	ppb	15	0.20	51	ND	0	Internal corrosion of household pipes; discharges from industrial manufacturer; erosion of natural deposits

CITYWIDE SAMPLING						
	Units	State MCL [MRDL]	MCLG [MRDLG]	Citywide Average	Range	Major Sources of Contaminants in Drinking Water
SAMPLES FROM DISTRIBUTION SYSTEM						
Total Coliform Bacteria	%	5.0 (d)	0	0.63	0.0 - 4.29	Naturally present in the environment
Fecal Coliform and E. Coli		(d)	0	0	0	Human and animal fecal waste
Total Trihalomethanes (TTHM) (h)	ppb	80	NS	29.4	13 - 48	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (h)	ppb	60	NS	7.9	0 - 21	By-product of drinking water disinfection
Bromate (n)	ppb	10	(0.1)	-	4.4 - 13	By-product of drinking water ozonation

WATER CONSTITUENTS OF INTEREST TO THE PUBLIC								
	Units		MWD Weymouth Plant	MWD Jensen Plant	Glendale Treatment Plant (c)	Verdugo Park Treatment Plant (o)	Glorietta Wells	Foothill Well
Alkalinity	ppm	Range Average	127 - 128 128	84 - 94 89	NA	-	150 - 200 172	150 - 160 155
Calcium	ppm	Range Average	74 74	26 - 36 31	91 - 95 93	-	88 - 100 95.0	76 - 79 78
Corrosivity (m) Aggressive Index	AI	Range Average	12.5 12.5	12 12	NA	-	12 12	12 12
Hardness (l)	ppm	Range Average	284 - 294 289	114 - 136 125	NA	-	380 - 400 387	310 310
Magnesium	ppm	Range Average	25 - 26 25	12 12	27 - 31 29	-	33 - 36 34	27 27
pH	pH Units	Range Average	8.1 8.1	8.1 - 8.3 8.2	7.9 - 8.4 8.2	-	ND - 8.2 6.8	0.0 - 7.6 6.8
Potassium	ppm	Range Average	4.4 - 4.7 4.6	2.6 - 2.7 2.7	3.1 - 4.4 3.8	-	3.1 - 3.6 3.3	4.2 - 4.2 4.2
Sodium	ppm	Range Average	89 - 96 93	69 - 73 71	48 - 54 51	-	43 - 49 46	32 32
Total Organic Carbon (TOC)	ppm	Range Average	2.4 - 2.7 2.5	1.3 - 2.1 1.9	NA	-	NA	NA

Abbreviations

- cu = color units
- DLR = Detection Limits for purposes of reporting
- 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 CA
- 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
- TON = Threshold Odor Number
- TT = Treatment Technique

Footnotes (For all charts)

- a) Aluminum has a secondary MCL of 200 ppb.
- b) Standard is for Radium-226 and -228 combined (calculated).
- c) These results were before blending unless otherwise noted.

Nitrate

Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. Nitrate in drinking water at levels above 45 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 45 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

Public Notification

Impaired groundwater sources may be monitored for certain chemicals with notification levels. A Notification Level (NL) is used to provide information about certain non-regulated chemicals in drinking water that lack MCLs. Monitoring by public water systems for chemicals with notification levels is not required. It is recommended that the drinking water System provide customer notification in the Consumer Confidence Report.

During 2014, GWP collected samples for N-Nitrosodi-n-propylamine (NDPA) for the Glendale Operable Unit (GOU). NDPA is part of a family of chemicals called "Nitrosamines", which are not part of the required routine monitoring. NDPA was detected in the raw, untreated groundwater at levels exceeding the NL. After the blending of the groundwater from the eight extraction wells the NDPA level at the Glendale Water Treatment Plant, prior to entry of the Glendale drinking water system, was not detected. GWP staff continues to monitor for the chemical under the guidance of the DDW staff and will continue to monitor and report on all water quality constituents as part of normal water quality activities.

d) Total coliform MCL: No more than 5% of the monthly samples may be total coliform-positive.

e) Lead and Copper Rule compliance based on 90th percentile of all samples being below the Action Level. Samples were taken from 51 customer taps. Testing is required every three years. This data was collected in 2014. Next testing is 2017.

f) Copper has a secondary MCL of 1000 ppb.

g) Analysis was on water before blending with MWD supply.

h) Compliance is based on system-wide annual average. Started quarterly sampling for the stage 2 DBPR. Monitoring Plan on May 14, 2012. MCL was not exceeded in 2014 quarterly sampling, no violation.

i) Hardness in grains/gallon can be found by dividing ppm by 17.1. For example, 289 ppm (mg/L) = 16.9 grains/gallon.

j) For GWP sources, data represents the amount of naturally occurring fluoride. For MWD sources, data is after fluoride added at MWD treatment plant. Glendale's distribution system fluoride levels were monitored in 2014 - range 0.61 ppm - 0.82 ppm with an average of 0.71 ppm.

k) Chlorate has a DDW Notification level of 800 ppb. Chlorate is a by-product of liquid chlorine. MWD range results were given distribution system wide.

l) Water from the Foothill Well is blended with system water, actual level of nitrate in water served ranged between 8 and 20 ppb, with an average of 13.3 ppb.

m) AI < 10.0 = Highly aggressive and very corrosive water. AI >= 12 = Non-aggressive water. AI (10.0 - 11.9) = Moderately aggressive water.

n) Compliance was based on RAA. Bromate was tested at effluent of Jensen Treatment Plant where ozone is used.

o) Verdugo Park Water Treatment Plant was offline in 2014.

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/safewater/lead>.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791).

DETECTED CONTAMINANTS AT GLENDALE'S WATER SOURCES											
	Units	State MCL	PHG or [MCLG]		MWD Weymouth Plant	MWD Jensen Plant	Glendale Treatment Plant (c)	Verdugo Park Water Treatment Plant (o)	Glorietta Wells	Foothill Well	Major Sources of Contaminants in Drinking Water
ORGANIC CHEMICALS											
Methyl-tert-butyl-ether (MTBE)	ppb	13	13	Range Average	ND	ND	ND	-	ND - 0.53 0.0	ND	Leaking underground storage tanks; discharge from petroleum and chemical factories; previously used as gasoline additives
Tetrachloroethylene (PCE)	ppb	5	0.06	Range Average	ND	ND	ND	-	0.5 - 3.0 1.4	ND - 0.77 0.43	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Trichloroethylene (TCE)	ppb	5	1.7	Range Average	ND	ND	ND	-	ND	ND	Discharge from metal degreasing sites and other factories
Dioxane	ppb	4	4	Range Average	ND	ND	ND - 1.0 1.0	-	NA	NA	Herbicide runoff
INORGANIC CHEMICALS											
Aluminum (a)	ppb	1000	600	Range Average	70 - 230 136	ND - 110 81	ND	-	ND	ND	Residue from some water treatment process; natural deposits erosion
Arsenic	ppb	10	0.004	Range Average	ND	2.2 2.2	ND - 5.3 1.8	-	1.1 - 1.2 1.2	1.4 1.4	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium	ppb	1000	2000	Range Average	112 112	112 112	5.7 - 100 78	-	110 - 130 117	99 99	Discharges of oil drilling waste and from metal refineries; erosion of natural deposits
Chromium 6	ppb	10	0.02	Range Average	ND	ND	1.2 - 11.0 7.1 (g)	-	0.27 - 0.70 0.32	1.3 1.3	Industrial waste discharge; runoff/leaching from natural deposits
Chromium, Total	ppb	50	[100]	Range Average	ND	ND	ND - 11 6.5	-	0.54	ND	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (j)	ppm	2	1	Range Average	0.6 - 1.0 0.8	0.7 - 0.9 0.8	NA	-	0.19 - 0.22 0.21	0.19 - 0.21 0.20	Erosion of natural deposits; water additives that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	ppm	45	45	Range Average	ND	12	23 - 27 25.2	-	25 - 38 31.5	45 - 48 46.0 (!)	Runoff and leaching from fertilizer use septic tank and sewage; natural erosion
Nickel	ppb	100	12	Range Average	ND	ND	ND - 6.3 5.6	-	ND	ND	Erosion of natural deposits; discharge from metal factories
Selenium	ppb	50	30	Range Average	ND	ND	ND - 6.7 3.5	-	ND	ND	Refineries, mines, and chemical waste discharge; runoff from livestock lots
RADIOLOGICALS											
Gross Alpha Particle Activity	pCi/L	15	[0]	Range Average	ND - 4 ND	ND - 5 3	ND - 11 4	-	3.35 - 6.61 5.05	3.85 - 3.85 3.85	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50	[0]	Range Average	4 - 6 5	ND - 5 ND	ND - 7.7 3.1	-	NA	NA	Decay of natural and man-made deposits
Combined Radium (b)	pCi/L	5	[0]	Range Average	ND	ND	ND - 2.4 0.7	-	ND	ND	Erosion of natural deposits
Strontium	pCi/L	8	0.35	Range Average	ND	ND	0.63 - 0.66 0.64	-	NA	NA	Decay of natural and man-made deposits
Uranium	pCi/L	20	0.43	Range Average	2 - 3 3	2 - 3 2	1.1 - 7.4 3.3	-	5.6 - 9.4 7.1	3.6 3.6	Erosion of natural deposits
REGULATED CONTAMINANTS WITH SECONDARY MCLs											
Chloride	ppm	500	NS	Range Average	86 - 92 89	85 - 86 86	56 - 72 60	-	89 - 99 95	62 62	Runoff/leaching from natural deposits; seawater influence
Color	cu	15	NA	Range Average	1 1	1 1	NA	-	ND	ND	Naturally occurring organic materials
Iron	ppb	300	NA	Range Average	ND	ND	ND - 44 40	-	ND	ND	Leaching from natural deposits; industrial waste
Manganese	ppb	50	NL = 500	Range Average	ND	ND	ND - 3.3 2.7	-	ND	ND	Leaching from natural deposits; industrial wastes
Odor	TON	3	NS	Range Average	2 2	3 3	NA	-	ND - 1 0	ND	Naturally occurring organic materials
Specific Conductance	uS/cm	1600	NA	Range Average	946 - 1010 987	588 - 631 610	NA	-	ND	NA	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NS	Range Average	227 - 238 233	63 - 75 69	120 - 140 132	-	130 - 140 133	89 89	Runoff/leaching from natural deposits; industrial waste
Total Dissolved Solids (TDS)	ppm	1000	NS	Range Average	604 - 641 623	325 - 355 340	340 - 580 545	-	600 - 670 628	460 - 520 490	Runoff/leaching from natural deposits; seawater influence
Turbidity	NTU	TT	NS	Range Average	ND	ND	0.15 - 0.14 0.07	-	0.051 - 0.059 0.06	0.056	Soil runoff