City of Glendale Water & Power WORROZ 2007 Water Quality Report



IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

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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 2007. You can be assured that your Glendale water is of the highest quality and is SAFE TO DRINK.

Reservoirs, Pipelines, Valves: Operations and Maintenance

When you turn on a faucet in your home, have you ever wondered how that drinking water travels from its source to your home?

Under Glendale's streets, water moves through 397 miles of pipeline, 8,535 valves and approximately 33,000 meters. In addition, Glendale Water & Power has 30 water storage tanks and reservoirs with a total storage capacity of 185 million gallons.

Keeping all these parts of the system in good working order is vitally important in maintaining good water quality. This requires the concerted effort of employees in several different GWP groups.

On a regular basis, storage facilities are drained, inspected by field staff for inside wear, and thoroughly cleaned before being put back into service. The valves located throughout the water distribution system need to be regularly turned to keep them functioning smoothly.

During 2007, GWP continued our citywide, multi-year program to replace or reline drinking water pipes. A cleaning and lining process is used if existing pipes are still structurally sound and large enough to provide the required water flow. After a mechanical device, similar to a "roto-rooter" travels through the pipe to clean it out, concrete mortar is sprayed on the inside of the pipe. This process smoothes the interior of the pipe, increasing water flows and improving water quality.

So, the next time you turn on a faucet in your home, know that there are many people working diligently to keep your water safe and healthful for you to drink.

COMMON CONTAMINANTS IN DRINKING WATER

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. It can also pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in at MWD's treatment plants and monitored by MWD in their water source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial process 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.



The new Chevy Chase Reservoir in the Chevy Chase Country Club golf course is expected to be completed in 2010. Demolition work on the old reservoir began in early January 2008.

WHERE DOES YOUR DRINKING WATER COME FROM?

SOURCE	ACRE FEET	PERCENTAGE			
Metropolitan Water District	22,547	70%			
Glendale Water Treatment Plant	7,522	23%			
Glorietta Wells	2,028	6%			
Verdugo Park Water Treatment Plant	542	۱%			

SOURCES OF GLENDALE'S DRINKING WATER

In 2007, Glendale Water & Power delivered over 10.63 billion gallons of potable (drinking water quality) water to the City's customers. 70% of that water was purchased from the Metropolitan Water District (MWD), after being imported from Northern California and the Colorado River. Before it was delivered to Glendale, it was treated quality laboratory.

Water from local sources made up 30% of our drinking water supplies. Water from our local sources was blended with MWD water before being delivered to your homes and businesses. 23% of GWP water was groundwater extracted from the San Fernando Basin and conveyed through the Glendale Water Treatment Plant. Water from the City's Glorietta Wells and the Verdugo Park Water Treatment Plant accounted for 7% of our supplies.

Source Water Assessments were conducted in 2000 and updated in 2006 for five wells in the Verdugo Basin. Located in an urban area, they are considered to be potentially vulnerable to contamination from underground gasoline storage tanks and leakage from sewer lines. In 2000, programs to control contamination from fertilizers and pesticides were put in place. Before being introduced into the water system, water from two wells is treated at the Verdugo Park Water Treatment Plant and water from three wells is blended with water from MWD. The Source Water Assessment can be obtained by contacting Ray Notario at (818) 548-3962.

A Message From Dan Waters

Interim Director of Glendale Water & Power

Glendale Water & Power's commitment to provide safe, healthy drinking water was established as a priority almost a century ago. We are proud to say that this commitment continues today. Our drinking water is of the highest quality and we are constantly seeking new methods to improve

that quality. Every year, GWP provides you

with a report on the quality of the drinking water we delivered to you the previous year. This booklet is our report for 2007. As you read through it, you will see that GWP provides excellent quality water that, without fail, passes tough Federal and State quality standards.



Award Winning Study

Working closely with the California Department of Public Health and in conjunction with Malcolm Pirnie engineers, we successfully completed a study to determine if a new technology, chlorite, could be used to minimize the amount of chlorine that needs to be added to the water in our distribution system while still maintaining the same water quality. Although the results were very positive, further evaluation of the process will be completed before we install it into our entire water system. The American Academy of Environmental Engineers awarded this study its Grand Prize in research for its Excellence in Environmental Engineering competition.

Maintaining safe drinking water is not a simple task. It requires a large investment in infrastructure as well as highly skilled people. Through their commitment to ongoing training and education, our GWP employees have become certified specialists in safeguarding the quality of your water.

amil Mater

Water Quality Terms You Will Find in This Report

 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 (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 California Environmental Protection Agency.

• 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 Residual Disinfectant Level (MRDL):

The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG):

The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the USEPA.

• Primary Drinking Water Standard (PDWS):

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

TreatmentTechnique (TT): A required process intended to reduce

the level of a contaminant in drinking water.

Cross-Connection Control Program

To protect drinking water systems from potential contamination, State law requires that utilities like GWP, maintain a Cross-Connection Control Program. A cross-connection can occur when a potable water line is directly or indirectly connected to a non-potable supply. Glendale has never experienced contamination due to a cross-connection.

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 non-potable supplies can include fire protection, lawn irrigation, cooling systems and high pressure boilers. Cross-connections may also occur due to commercial process equipment such as metal plating tanks and heat exchangers and booster pumps inside customers' premises.

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 and seminars 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.

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 20 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.

Currently, recycled water use in Glendale is about five percent of the total annual water used. GWP has 59 service connections that provide recycled water for public area irrigation, cooling towers, street cleaning, dust abatement, and flushing

urinals and toilets. 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.





The Fluoridation of Glendale's Water

In November 2007, the Metropolitan Water District (MWD) of Southern California joined a majority of the nation's public water suppliers by adding fluoride to the drinking water it delivers. Glendale receives 70% of our water supplies from MWD. Because we blend MWD water with our local groundwater supplies, GWP routinely monitors the level of fluoride throughout the City.

More than 60 years of scientific research and experience have demonstrated that fluoridating public drinking water is safe and the best method of improving oral health in a community. Fluoride helps teeth resist decay by strengthening the protective layer of tooth enamel.

Drinking fluoridated water on a regular basis should make the use of fluoride tablets and drops unnecessary. GWP water customers using or considering the use of fluoride supplements should discuss this issue with their health care providers.

Despite fluoride's proven record, many consumers may not be familiar with its benefits or may be concerned about adding it to their drinking water. You can find additional information at the following website: http://www.mwdh2o.com/fluoridation/index.html.

IMPORTANT INFORMATION FOR PEOPLE WITH COMPROMISED IMMUNE SYSTEM

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. The 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).

, per liter

Abbreviations

NA = Not Analyzed ND = None Detected NL = Notification Level NS = No Standard AL = Regulatory Action Level PHG = Public Health Goal ppb = parts per billion ppm = parts per million ppt = parts per trillion

pCi/L = picoCurries DPH = Department of Public Health . NTU = Nephelometric Turbidity Units DLR = Detection Limits for purposes of reporting TT = Treatment Technique MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

MRDI = Maximum Residual Disinfectant Level MRDLG = Maximum Residual Disinfectant Level Goal MWD = Metropolitan Water District of Southern California

	DETECTED CONTAMINANTS AT GLENDALE'S WATER SOURCES												
	Units	State MCL	PHG or (MCLG)		MWD Jensen Plant (n)	MWD Weymouth Plant (n)	Glendale Water Treatment Plant (d)	Glorietta Wells (d)	Verdugo Park Water Treatment Plant	Major Sources of Contaminants in Drinking Water			
ORGANIC CHEMICALS													
Tetrachloroethylene (PCE)	ррЬ	5	0.06	Range Average	ND	ND	ND	ND-5.4 2.0 (p)	ND	Discharge from factories, dry cleaners, and auto shops			
Methyl-tert-butyl-ether (MTBE)	ppb	13	13	Range Average	ND	ND	ND	ND-0.8 0.06	ND	Petroleum refinery discharges; fire retardants; solder; electronics			
INORGANIC CHEMICALS													
Aluminum (a)	ррЬ	1000	600	Range Average	53-110 84	ND-140 70	ND-58 12	ND-8 6	ND-15 8	Residue from water treatment process; erosion of natural deposits			
Arsenic	ррЬ	10	0.004	Range Average	ND-2.4 ND	ND-2.6 ND	ND-1 0.2	ND	ND	Erosion of natural deposits, glass and electronics production wastes.			
Barium	ррт	I	2	Range Average	ND	ND	0.06-0.09 0.07	0.08-0.12 0.11	0.07-0.08 0.08	Oil and metal refinery, aerospace discharges; erosion of natural deposits			
Total Chromium	ррЬ	50	(100)	Range Average	ND	ND	10-12 8	ND	ND	Discharge from steel and pulp mills, erosion of natural deposits			
Fluoride (I)	ррт	2	I	Range Average	0.60-0.80	0.6-1.0	0.33-0.40 0.37	0.17-0.19 0.18	0.19-0.2 0.2	Erosion of natural deposits; water additive for dental health			
Nitrate	ррт	45	45	Range Average	ND-3.5 2.7	ND-3.5 2.2	23-26 25	I4.7-49.9 36.1 (b)	15.1-19.5 17.7	Runoff and leaching from fertilizer use; sewage; natural erosion			
RADIOLOGICALS													
Gross Alpha Particle Activity	pCi/L	15	(0)	Range Average	ND-4.3 ND	ND	ND-11 4	7-9 8	7.8-8.7 8.1	Erosion of natural deposits			
Gross Beta Particle Activity	pCi/L	50	(0)	Range Average	ND	ND	ND-7.7 3.1	1.3-4.1 2.8	1.8-2.4 2.1	Decay of natural and man-made deposits			
Combined Radium (c)	pCi/L	5	(0)	Range Average	ND	ND	ND-2.4 0.7	ND-2.5 0.9	ND-1.0 0.7	Erosion of natural deposits			
Uranium	pCi/L	20	0.43	Range Average	I.I-I.9 I.4	ND	5-13.4 8.4	6.3-10.2 8.2	ND	Erosion of natural deposits			
REGULATED CONTAMINA	ANTS WITH SE	CONDARY MCL	S							·			
Chloride	ррт	500	NS	Range Average	40-70 61	71-101 86	54-59 57	88-110 99	0- 8 4	Runoff/leaching from natural deposits; seawater influence			
Color	cu	15	NA	Range Average	l-2 2	I-2 2	NA	ND-1 0.17	ND-2 I	Naturally occurring organic materials			
Iron	ррЬ	300	NS	Range Average	ND	ND	ND-410 20	ND	ND	Leaching from natural deposits; industrial wastes			
Manganese	ррЬ	50	NL=500	Range Average	ND	ND	ND	2.2-36.6 6.5	1.3-56.3 28.8	Leaching from natural deposits;			
Odor	ppb	3	NS	Range Average	2 2	l	NA	ND	ND	Naturally occurring organic materials			
Silver	ррЬ	100	NS	Range Average	ND	ND	ND	ND-1.06 0.18	ND	Industrial discharges			
Sulfate	ppm	500	NS	Range Average	46-57 52	96-175 140	30- 30 30	141-161 150	193-217 205	Runoff/leaching from natural deposits; industrial wastes			
Total Dissolved Solids (TDS)	ррт	1000	NS	Range Average	248-285 267	348-509 437	516-644 559	563-684 618	692-766 729	Runoff/leaching from natural deposits; seawater influence			
Turbidity (o)	NTU	5	NS	Range Average	0.04-0.05 0.04	0.05-0.07 0.06	0.05-0.05 0.05	ND	ND-0.19 0.15	Soil runoff			
Zinc	ррb	5000	NS	Range Average	ND	ND	ND	ND-10.9 1.8	ND	Runoff/leaching from natural deposits; industrial wastes			

Footnotes (For all charts) a) Aluminum has a secondary MCL of

- 200 ppb.
- b) As the result of blending, actual level of nitrate in water served ranged between 3.7 and 30.3 ppm, with an average of 16.2 ppm. c) Standard is for Radium -226 and
- -228 combined. d) These results were before blending

unless otherwise noted.

- e) Total coliform MCL: No more than
- 5% of the monthly samples may be total coliform-positive.
- f) Lead and Copper Rule compliance based on 90th percentile being below the Action Level. Samples were taken from 51 customer taps. Testing is required every three years. This data was collected in 2005.
- g) Copper has a secondary MCL of 1000 ppb.
- h) Analysis was on water before blending with MWD supply.
- i) Compliance is based on system-wide annual average.
- j) Hardness in grains/gallon can be found by dividing the ppm by 17.1. 120ppm = 7.02 grains/gallon.
- k) Bromate has an MCL of 10 ppm. I) For GWP sources, data represents the amount of naturally occurring fluoride, before MWD began fluoridation. For MWD sources, data represents only months after MWD began fluoridation.
- m) Chlorate has a DPH Notification level of 800 ppb. Chlorate was formed during the chlorite study in Glenoaks Canyon and observed to be a by-product of liquid chlorine.
- n) During 2007, Glendale received MWD water primarily from the Jensen treatment plant. Beginning in the fall, Glendale received MWD water from the Weymouth treatment plant.
- o) Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effective ness of our filtration system.
- p) As the result of blending, actual level of tetrachloroethylene (PCE) in water served ranged between ND and 0.8ppb, with an average of 0.64ppb.

UNREGULATED CONTAMINANT MONITORING REGULATION (US EPA)

The Unregulated Contaminant Monitoring Regulation is a revision to the Safe Drinking Water Act. It requires Glendale to monitor for 11 contaminants that are currently unregulated. The contaminants are listed below and all analyses have been non-detect. Glendale sampled four groundwater sources requiring semi-annual test and one surface water source requiring guarterly test. An administrative order was received from EPA because two guarterly tests were incomplete due to laboratory interaction and one semi-annual test was late.

2,4-Dinitroluene	DCPA di and mono-acid degratate	Molinate	Perchlorate
2,6-Dinitroluene	Dichlorodiphenyldichloroethylene (4,4'-DDE)	MTBE	Terbacil
Acetochlor	s-ethyl dipropylthiocarbamate (EPTC)	Nitrobenzene	

UNREGULATED CHEMICAL MONITORING REGULATION (California Department of Public Health) The California Department of Public Health required the monitoring of nine unregulated chemicals. Six that were below detectable levels are listed below. The results from the remaining three are tabulated at right. Dichlorodifluoromethane (Freon 12) Perchlorate tert-Butyl alcohol (TBA) Ethyl-tert-butyl-ether (ETBE) tert-Amvl-methyl-ether (TAME) Trichloropropane (1,2,3-TCP)

WATER QUALITY MAINTENANCE AND REGULATION

The City uses both chlorine and chloramines for disinfection. Some locations may alternate from chloramines to chlorine depending on operating conditions. Customers with special water quality needs such as kidney dialysis or aquariums should prepare for removal of chloramines as well as chlorine. GWP also uses additional programs to maintain the high quality of our water including: flushing distribution water mains, maintaining an effective cross-connection control program, cleaning reservoirs and tanks, and conducting water quality testing in storage facilities and water mains throughout the City.

State and Federal Agencies

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

State and Federal agencies thoroughly regulate the water we deliver to our customers by requiring significant water quality sampling. They require over 8,000 tests each year. The laboratory testing costs alone are over \$100,000 annually, plus staff time involved in collecting the water samples. Additionally, the State inspects our water system and reviews the test results to ensure that required sampling is occurring and that we meet all regulatory requirements.



Automatic Flushing Devices

GWP staff periodically flush water from our water pipelines to prevent the stagnation of water and to prevent possible color, odor, or taste problems.

Nitrate in drinking water at levels above 45 ppm

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 ppm 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 for advice

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).

from your health care provider.

To reduce the amount of wasted water while continuing to maintain good water quality, in June 2007, GWP began installing programmable Automatic Flushing Units (AFU) to replace manual flushing. Similar to an automatic sprinkler system controller, an AFU can be set for the frequency, time and duration that flushing is to occur.

At every location where AFUs have been installed, the benefits of these devices have become immediately evident. The discharge of water has been reduced, the work required to maintain each location has been minimized, and the quality of the water has been kept at a continuously high level.

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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

D	ETEC	TED	CON	ΤΑΜΙ	NAN	rs at c	GLE	INDA	LE'S	S WA	TER	SO	URCE	S
	Units	Notifi- cation Level	State DLR		MWD Jensen Plant (n	MWD Weymou) Plant (i	ıth n)	Glendale Treatment Plant (d)	Glo We	orietta Ils (d)	Verdug Park Tre ment Pla	go at- ant	Major Conta Drink	Sources of minants in ing Water
ATE REGULA	ATED CO	NTAMIN		T <mark>H NO M</mark>	CLs									
ron	ррЬ	1,000	100	Range Average	170-200 180	130-170 150	0	170-600 210		8-131 124	ND		Runoff/leach deposits; ind	ing from natural ustrial wastes
nromium VI	ррЬ	NS	1	Range Average	0.06-0.22 0.12	2 0.10-0.1 0.13	7	10-12 8.7 (h)		ND	0.23		Industrial wa	aste discharge
nadium	ррЬ	50	3	Range Average	ND-3.7 3.1	ND-4.1 3.3	4.4-6.6 5.0		5	5-5.5 5.3	3.7-4.8 4.3	3	Naturally-oc industrial wa	ccurring; aste discharge
· · · · · ·			· · · ·	LEA	DAN	D COP	PE	R RUL	.E (f	')		÷		
	U	nits	Action Level		РНG	No. of Samples	Pei	90th rcentile	No. of excee action	sites ding level	Major Sources of Contaminant in Drinking Water			ntaminants ater
MPLES FROI	мсията	MERS TA	NPS (COLL	ECTED	EVERY 3 YE	ARS)								
opper (g)		ppb	1300		170	51		400	I		Internal co erosion of	rrosio natura	on of househo al deposits	old pipes;
ad		ppb	15		2	51		4.5	2	2	Internal co erosion of	rrosio natura	on of househo al deposits	old pipes;
CITYWIDE SAMPLING														
Units				Stat [M	e MCL RDL]	MCLG [MRDLG]	Ci A	tywide verage	Ran	nge Majo		or Sources of Contamina in Drinking Water		ntaminants ater
MPLES FRO	M DISTRI	BUTION	SYSTEM											
tal Coliform Bacteria %				5	0 (e)	0		0.21	0-0.	.66	Naturally p	oresen	t in the envir	ronment
cal Coliform and <i>E. Coli</i>				(e)			0	0)	Human and	d anim	al fecal wast	e	
tal Trihalomethanes (TTHM) (i) ppb				80	NS		36.5	8-1	38	By-product	t of dr	inking water	chlorination	
loacetic Acids (I	HAA5) (i) sidual		ppb ppm		60 [4]	NS [4]	14.9		4.0-3 ND-	-5.3	By-product Drinking w	t of dr vater d	inking water lisinfectant a	chlorination dded
V			NSTI				PE	STTC	ТЦ					
			Units			MWD Jensei Plant (n n)	MWI Weymo Plant (Gler Treat Plan	ndale tment nt (d)	Gia Wa	orietta ells (d)	Verdugo Park Treatment Plant
kalinity			ppm	R	ange Average	76-92		80-9 88	7	206 2	-218 12	14	49-204 192	191-202 197
omate (k)			ррЬ	R	ange Average	3.4-10.	0	NA	`	Ν	JA		NA	NA
lcium			ppm	R	ange Average	23-26 24		30-4 41	9	91 9	-96 94	7	74-96 83	91-111 101
llorate (m)			ррЬ	R	ange Average	ND-32	2	34-3	6	148 1	-259 67	I	18-153 136	153-153 153
ırdness (j)			ppm	R	ange Average	108-11 112	7	37-2 8	.11	330 3	-350 40	30	60-450 404	450-520 475
ıgnesium			ppm	R	ange Average	- 3 2		14-2 19	2	26 2	-27 26	1	29-45 37	34-54 49
- Nitrosodimeth	nylamine (N	IDMA)	ppt	R	ange Average	ND-3.	0	ND))-2.4 .4		NA	NA
I			pH Unit	s R	ange Average	8.2-8.4	1	8.1-8 8.2	8.4	8.1 8	-8.4 3.2	6	5.2-7.9 7.0	6.4-8.1 6.9
tassium			ppm	R	ange Average	2.6-2.9 2.7)	3.1-4 3.7	.3	4-4.3 4.1		3	8.2-4.8 4.2	4.8-5.2 5.0
dium			ppm	R	ange Average	40-58 50		66-9 80	3	51	-54 53	-	34-69 51	45-71 58
tal Organic Carl	bon (TOC)		ppm	R	ange Average	1.5-2.6 2.2	5	I.8-2 2.2	8	N	IA		NA	NA

D	ETEC		CON	IAMI	NAN	ISALG	LE	INDAL	-E'S V	VALER	SC	OURCE	5	
	Units	Notifi- cation Level	State DLR		MWD Jensei Plant (n WWD n Weymou n) Plant (n	th)	Glendale Treatment Plant (d)	Gloriet Wells (ta d) Verd Park T ment	ugo reat- Plant	Major Conta Drink	Sources of minants in ing Water	
STATE REGULA	TED CO	NTAMIN	ANTSWI	г <mark>н </mark>	CLs									
Boron	ррЬ	I,000	100	Range Average	170-20 180	0 30-170 50		170-600 210	8- 3 24		C	Runoff/leach deposits; inc	ning from natural lustrial wastes	
Chromium VI	ррЬ	NS	I	Range Average	0.06-0.2 0.12	22 0.10-0.17 0.13	7	10-12 8.7 (h)	ND	0.2	.3	Industrial w	aste discharge	
Vanadium	ррЬ	50	3	Range Average	ND-3. 3.1	7 ND-4.1 3.3		4.4-6.6 5.0	5-5.5 5.3	3.7 4.1	4.8 3	Naturally-occurring; industrial waste discharge		
				LEA	DAN	D COP	PE	R RUL	E (f)					
Units			Action Level		PHG	No. of Samples	Pe	90th rcentile No. of site exceeding action leve		es Maj g el	Major Sources of Cor in Drinking W		ntaminants /ater	
SAMPLES FROM CUSTOMERS TAPS (COLLECTED EVERY 3 YEARS)														
Copper (g)		ррЬ	1300		170	51		400	I	Internal erosion of	corrosi of natu	ion of househ ral deposits	old pipes;	
Lead		ррЬ	15		2	51		4.5	2	Internal erosion of	corrosi of natu	ion of househ ral deposits	old pipes;	
CITYWIDE SAMPLING														
			Units State MCL [MRDL]		te MCL IRDL]	MCLG [MRDLG]	Ci A	tywide verage	Range	Maj	Major Sources of Contaminants in Drinking Water		ntaminants /ater	
SAMPLES FROM	1 DISTR	IBUTION	SYSTEM											
Total Coliform Bac	teria		%	5	.0 (e)	0		0.21	0-0.66	0-0.66 Naturally		nt in the envi	ronment	
Fecal Coliform and	E. Coli							0	0	0 Human ai		mal fecal wast	e	
Total Trihalometha	M) (i)	ррЬ		80	NS		36.5	8-138	By-prod	uct of c	Irinking water	· chlorination		
Haloacetic Acids (H	HAA5) (i)		ррЬ		60	NS		14.9	4.0-30.6	By-produ	uct of c	Irinking water	· chlorination	
Total Chlorine Res	idual		ppm	ppm		[4]		1.42	ND-5.3	Drinking for treat	water ment	disinfectant a	dded	
W	ΆΤΕ	R CO	NSTI	FUEN	ITS C	F INTE	RE	ST TO	THE	PUBLI	C			
			Units			MWD Jensen Plant (1	MW 1 Weymo n) Plant		uth T n) I	Glendale reatment Plant (d)	G W	ilorietta Vells (d)	Verdugo Park Treatment Plant	
Alkalinity			ppm	R	ange Average	76-92 82		80-97 88	,	206-218 212		149-204 192	191-202 197	
Bromate (k)			ррЬ	R	ange Average	3.4-10.0 e 6.3)	NA		NA		NA	NA	
Calcium			ррт	R	ange Average	23-26 24		30-49 41		91-96 94		74-96 83	91-111 101	
Chlorate (m)			ррЬ	R	ange Average	ND-32		34-36		48-259 67		8- 53 36	153-153 153	
Hardness (j)			ррт	R	ange Average	108-117 e 112	7	137-21 181	I	330-350 340		360-450 404	450-520 475	
Magnesium			ррт	R	ange Average	- 3 e 2		14-22 19		26-27 26		29-45 37	34-54 49	
N - Nitrosodimethylamine (NDMA)		ppt	R	ange Average	ND-3.0		ND		ND-2.4 1.4		NA	NA		
рН			pH Unit	s R	ange Average	8.2-8.4 8.3		8.1-8.4 8.2	1	8.1-8.4 8.2		6.2-7.96.4-8.17.06.9		
Potassium			ррт	R	ange Average	2.6-2.9 2.7	9 3.1-4		3	4-4.3 4.1		3.2-4.8 4.2	4.8-5.2 5.0	
Sodium			ррт	R	ange Average	40-58 50		66-93 80		51-54 53		34-69 51	45-71 58	
Total Organic Carb	oon (TOC)	ppm	R	ange Average	e 1.5-2.6		I.8-2.8 2.2	3	NA		NA	NA	

D	EIEC	IED	CON	IAM	INAN	ISALC	SAI GLE	:NDAL	_E'S W	AIEK	TER SOURCE		5
	Units	Notifi- cation Level	State DLR		MWD Jensen Plant (i	MWD Weymou n) Plant (1	th 1)	Glendale Treatment Plant (d)	Gloriett Wells (d	a Verdu Park Tr) ment P	igo reat- Plant	Major Conta Drink	Sources of minants in ing Water
STATE REGUL	ATED COI	NTAMIN	ANTSWI	ГН NO M	ICLs								
Boron	ррЬ	1,000	100	Range Average	I 70-200	0 30-170 50)	170-600 210	8- 3 24	ND)	Runoff/leach deposits; inc	ning from natural lustrial wastes
Chromium VI	ррЬ	NS	I	Range Average	0.06-0.2	2 0.10-0.1 0.13	7	10-12 8.7 (h)	ND	0.23	3	Industrial wa	aste discharge
Vanadium	ррЬ	50	3	Range Average	ND-3.7 3.1	/ ND-4.1 3.3		4.4-6.6 5.0	5-5.5 5.3	3.7-4 4.3	.8	Naturally-oo industrial wa	ccurring; aste discharge
				LEA	DAN	D COP	PEI		E (f)				
	nits	Action Level		PHG	No. of Samples	Pei	90th rcentile	No. of sites exceeding action leve	Majo	Major Sources of Contaminant in Drinking Water		ntaminants /ater	
SAMPLES FRO	м сиѕто	MERS TA	APS (COLL	ECTED	EVERY 3 Y	EARS)							
Copper (g) ppb		рр	1300		170	51		400	I	Internal c erosion o	orrosi f natuı	on of househ ral deposits	old pipes;
Lead	F	opb	15		2	51		4.5	2	Internal c erosion o	orrosi f natuı	on of househ ral deposits	old pipes;
CITYWIDE SAMPLING													
			Units State [MR		te MCL 1RDL]	MCLG [MRDLG]	Ci A	tywide verage	Range	Majo	Major Sources of Contaminan in Drinking Water		ntaminants /ater
SAMPLES FRO	M DISTRI	BUTION	SYSTEM										
Total Coliform Bad	cteria		%	5	5.0 (e)	0		0.21	0-0.66	Naturally	prese	nt in the envii	ronment
Fecal Coliform and	d E. Coli				(e)			0	0) Human a		nal fecal wast	e
Total Trihalometha) (i)	ppb		80	NS		36.5	8-138	By-produ	ct of d	rinking water	chlorination	
Haloacetic Acids (I	HAA5) (i)		ppb		60	NS		14.9	4.0-30.6	By-produ	ct of d	rinking water	chlorination
Total Chlorine Res	sidual		ppm		[4]	[4]	[4] I		1.42 ND-5.3		water nent	disinfectant a	dded
V	ATE	R CO	NSTI	TUEN	NTS O	F INTE	RE	ST TO	THE	PUBLI	С		
			Units			MWD Jenser Plant (MWD Jensen Plant (n)) G uth Tr n) P	lendale eatment ant (d)	G W	lorietta /ells (d)	Verdugo Park Treatment Plant
Alkalinity			ррт	F	lange Average	76-92 82		80-97 88		206-218 212		149-204 192	191-202 197
Bromate (k)			ррЬ	F	lange Average	3.4-10. 6.3	0	NA		NA		NA	NA
Calcium			ррт	F	lange Average	23-26 24		30-49 41	,	91-96 94		74-96 83	91-111 101
Chlorate (m)			ррЬ	F	lange Average	ND-32	2	34-36	,	48-259 167	I	118-153 136	153-153 153
Hardness (j)			ppm	F	lange Average	108-11 112	7	37-2 8	1 3	30-350 340	3	360-450 404	450-520 475
Magnesium			ррт	F	lange Average	- 3 2		14-22 19	<u> </u>	26-27 26		29-45 37	34-54 49
N - Nitrosodimethylamine (NDMA)			ppt	F	lange Average	ND-3.0	0	ND		ND-2.4 1.4		NA	NA
рH			pH Unit	ts F	lange Average	8.2-8.4	ł	8.1-8.4 8.2	4	8.1-8.4 8.2		6.2-7.96.4-8.7.06.9	
Potassium			ррт	F	lange Average	2.6-2.9)	3.1-4.3 3.7	3	4-4.3 4.1		3.2-4.8 4.2	4.8-5.2 5.0
Sodium			ррт	F	lange Average	40-58		66-93 80		51-54 53		34-69 51	45-71 58
Total Organic Carl	bon (TOC)		ррт	F	lange Average	1.5-2.6 2.2	b	I.8-2.8 2.2	3	NA	NA NA		NA

D	EIEC	IED	CON	IAM	INAN	NANISAIG		GLENDALE		E'S WATER		RSOURCES		
	Units	Notifi- cation Level	State DLR		MWD Jenser Plant (n MWD n Weymou n) Plant (i	th 1)	Glendale Treatment Plant (d)	Glorie Wells	etta (d)	Verdugo Park Treat ment Plan	- Major - Conta t Drin	Sources of minants in king Water	
STATE REGULA	ATED CO	NTAMIN	ANTSWI		1CLs									
Boron	ррь	1,000	100	Range Average	170-20 180	0 30-170)	170-600 210	8- 24	31 1	ND	Runoff/lead deposits; in	hing from natural dustrial wastes	
ChromiumVI	ррЬ	NS	I	Range Average	0.06-0.2 0.12	22 0.10-0.1 0.13	7	10-12 8.7 (h)	NE)	0.23	Industrial v	vaste discharge	
Vanadium	ррЬ	50	3	Range Average	ND-3.	7 ND-4.1 3.3		4.4-6.6 5.0	5-5. 5.3	5	3.7-4.8 Naturall 4.3 industria		occurring; vaste discharge	
			· •	LEA	DAN	D COP	PE		E (f)					
	nits	Action Level		PHG	No. of Samples	Per	90th ercentile actio		f sites eding n level		jor Sources of Contaminants in Drinking Water			
SAMPLES FROM	м сиѕто	MERSTA	APS (COLL	ECTED	EVERY 3 Y	'EARS)								
Copper (g) ppb		opb	1300		170	51		400	Ι		Internal corro erosion of na	osion of housel tural deposits	nold pipes;	
Lead	F	opb	15		2	51		4.5	2		Internal corro erosion of na	osion of housel tural deposits	nold pipes;	
CITYWIDE SAMPLING														
			Units [MR		te MCL MRDL]	MCLG [MRDLG]	Cir Av	tywide verage	Range	nge Maj		ajor Sources of Contaminants in Drinking Water		
SAMPLES FROM	M DISTRI	BUTION	SYSTEM											
Total Coliform Bac	teria		%	Į	5.0 (e)	0		0.21	0-0.66		Naturally pre	sent in the env	ironment	
Fecal Coliform and	I E. Coli				(e)		0		0		Human and animal fecal waste			
Total Trihalometha	l) (i)	ррЬ		80	NS		36.5	8-138		By-product o	f drinking wate	r chlorination		
Haloacetic Acids (H	HAA5) (i)		ррЬ		60	NS		14.9	4.0-30.0	5	By-product o	f drinking wate	r chlorination	
Total Chlorine Res	idual		ppm		[4]	[4]	[4] I		ND-5.3	;	Drinking wat for treatment	er disinfectant	added	
M	/ATEF	R CO	NSTI	TUEN	NTS C	F INTE	RE	ST TO	THE	PL	JBLIC			
			Units			MWD Jensei Plant (MWD Jensen Plant (n)) uth (n)	Glendale Treatment Plant (d)		Glorietta Wells (d)	Verdugo Park Treatment Plant	
Alkalinity			ррт	F	Range Average	76-92 82		80-97 88		206- 21	-218 2	149-204 192	191-202 197	
Bromate (k)			ррь	F	Range Average	3.4-10. e 6.3	0	NA		N	A	NA	NA	
Calcium			ррт	F	Range Average	23-26 24		30-49 41)	91- 9	-96 4	74-96 83	91-111 101	
Chlorate (m)			ррь	F	Range Average	ND-32	2	34-36		۱48- ۱ <i>۴</i>	-259 57	118-153 136	153-153 153	
Hardness (j)			ррт	F	Range Average	108-11 e 112	7	37-2 8	I	330- 34	-350 1 0	360-450 404	450-520 475	
Magnesium			ррт	F	Range Average	- 3 e 2		14-22 19	<u>.</u>	26- 2	-27 6	29-45 37	34-54 49	
N - Nitrosodimethylamine (NDMA)		ppt	F	Range Average	ND-3.	D	ND		ND I.	-2.4 .4	NA	NA		
рН			pH Unit	s F	Range Average	8.2-8.4 8.3	ł	8.1-8.4 8.2	4	8.1- 8.	-8.4 2	6.2-7.9 7.0	6.4-8.1 6.9	
Potassium			ррт	F	Range Average	2.6-2.9 2.7)	3.1-4.3 3.7	3	4-4.3 4.1		3.2-4.8 4.2	4.8-5.2 5.0	
Sodium			ррт	F	Range Average	40-58 e 50		66-93 80		51- 5	-54 3	34-69 51	45-71 58	
Total Organic Cart	oon (TOC)		ррт	F	Range Average	e 1.5-2.6	6	1.8-2.8 2.2	B	N	A	NA	NA	

	EI	EC	IED	CON	IAM	NAN	ISALG	LE	:NDAL	-E'S \	VΑ	I ER S	OURCE	-5	
	Un	nits	Notifi- cation Level	State DLR		MWD Jenser Plant (n MWD n Weymou n) Plant (r	th ı)	Glendale Treatment Plant (d)	Glorie Wells	etta (d)	Verdugo Park Trea ment Pla	t- Major tr Conta nt Drinl	Sources of aminants in king Water	
STATE REGULA	ATE	CON	TAMIN	ANTSWI	ГН NO М	CLs									
Boron	P	pb	1,000	100	Range Average	170-20 180	0 130-170 150)	170-600 210	8- 24	31 4	ND	Runoff/leac deposits; in	hing from natural dustrial wastes	
ChromiumVI	P	pb	NS	I	Range Average	0.06-0.2 0.12	22 0.10-0.1 0.13	7	10-12 8.7 (h)	2 ND		0.23	Industrial w	vaste discharge	
Vanadium	P	pb	50	3	Range Average	ND-3. 3.1	7 ND-4.1 3.3		4.4-6.6 5.0	5-5. 5.3	5	3.7-4.8 4.3	1.8 Naturally-occurring;3 industrial waste discharge		
					LEA	DAN	D COP	PEI		E (f)					
Units			lits	Action Level	Action Level		No. of Samples	Pei	90th rcentile	No. of sin exceedin action le	tes ng vel	Major Sources of Co in Drinking W		ntaminants Vater	
SAMPLES FROM	мсι	JSTO	MERSTA	PS (COLL	ECTED	EVERY 3 Y	'EARS)								
Copper (g)		PI	pb	1300		170	51		400	Ι		Internal cori erosion of n	rosion of househ atural deposits	nold pipes;	
Lead		PI	pb	15		2	51		4.5	2		Internal corr erosion of n	rosion of househ atural deposits	nold pipes;	
CITYWIDE SAMPLING															
			Units	Units State MCL [MRDL]		MCLG [MRDLG]	Ci A	tywide verage Rang			Major Sources of Contaminan in Drinking Water		ntaminants Vater		
SAMPLES FRO	M DI	STRIB	UTION	SYSTEM					·						
Total Coliform Bac	cteria			%	5	.0 (e)	0		0.21	0-0.66	0-0.66 Natura		esent in the envi	ronment	
Fecal Coliform and	d E. Co	oli							0		0 Human ai		animal fecal was	te	
Total Trihalometha	ines (TTHM)	(i)	ppb		80	NS		36.5	8-138	-138 By-produ		of drinking wate	r chlorination	
Haloacetic Acids (HAA5) (i)				ppb		60	NS		14.9	4.0-30.6	5 I	By-product	of drinking wate	r chlorination	
Total Chlorine Res	sidual			ppm		[4]	[4]	[4] I.·		.42 ND-5.3		Drinking wa for treatmer	ter disinfectant and	added	
V	/A ⁻	TER	CO	NSTI	TUEN	ITS C	FINTE	RE	ST ТО	THE	PL	JBLIC			
				Units			MWD Jenser Plant (i) MW n Weym (n) Plant		VD Gle nouth Trea t (n) Pla		dale ment t (d)	Glorietta Wells (d)	Verdugo Park Treatment Plant	
Alkalinity				ррт	F	ange Average	76-92 e 82		80-97 88	,	206- 21	218	149-204 192	191-202 197	
Bromate (k)				ррЬ	F	ange Average	3.4-10.0 e 6.3)	NA		N	A	NA	NA	
Calcium				ppm	R	ange Average	23-26 e 24		30-49 41		91- 9	·96 4	74-96 83	91-111 101	
Chlorate (m)				ррь	R	ange Average	ND-32		34-36		148- 16	259 57	18-153 36	153-153 153	
Hardness (j)				ррт	R	ange Average	108-11 e 112	7	37-2 8	I	330- 34	-350 Ю	360-450 404	450-520 475	
Magnesium				ppm	R	ange Average	e 12		14-22 19		26- 2	-27 6	29-45 37	34-54 49	
N - Nitrosodimethylamine (NDMA)		OMA)	ppt	R	ange Average	nD-3.0	ND-3.0			ND- I.	-2.4 4	NA	NA		
рН				pH Unit	s R	ange Average	8.2-8.4 e 8.3		8.1-8.4 8.2	1	8.1-8.4 8.2		6.2-7.9 7.0	6.4-8.1 6.9	
Potassium				ppm	R	ange Average	2.6-2.9 e 2.7		3.1-4.3 3.7	3	4-4.3 4.1		3.2-4.8 4.2	4.8-5.2 5.0	
Sodium				ppm	R	ange Average	40-58 e 50		66-93 80		51- 5	-54 3	34-69 51	45-71 58	
Total Organic Carl	bon (TOC)		ppm	R	ange Average	e 1.5-2.6		I.8-2.8 2.2	3	N	A	NA	NA	



Glendale Water & Power 141 North Glendale Ave., 2nd Level Glendale, CA 91206

WQR.07





City of Glendale Water & Power 2007 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.

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 महत्तवपूरण है। कृपया कसीि से इसका अनुवाद करा लीजएि।

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.

Ang impormasyon na ito ay mahalagang-mahalaga. Mangyaring maghanap ng makakapagsalin nito para sa inyo.

Customer Participation and Assistance

Comments from the public are welcome and may be presented at the Glendale *Water and Power* Commission meetings held the first Monday of each month, at 4:00 PM, in the Glendale City Council Chambers, 613 E. Broadway.

If you have any questions regarding the quality of your drinking water or would like more information about Glendale water, please write to: Ray Notario , Water Quality Section, Glendale *Water & Power*

141 N. Glendale Ave., Level 4, Glendale, CA 91206 or call (818) 548-3962 or 548-2062.

You may also visit our website at www.GlendaleWaterAndPower.com

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).