Town of Gilbert, Public Works

Gilbert, Arizona

Welcome

Dear Water Customer,

Welcome and thank you for choosing the Town of Gilbert for your residence. We are pleased to report another successful year providing our customers with tap water that met and/or exceeded the federal and state standards.

Following is the Water Quality Report, also known as the Consumer Confidence Report (CCR) for the water quality data for the year 2010. The CCR is our report with a summary of water quality data, water supply and other useful information.

The Safe Drinking Water Act of 1974 and subsequent amendments by the U.S. Environmental Protection Agency (EPA) dictate that water providers monitor their treatment processes and systems to ensure a safe drinking water supply. The Town uses guidance from the U.S. EPA, the Arizona Department of Environmental Quality (ADEQ), and the Maricopa County Environmental Health Services (MCEHS)



to establish regular monitoring schedules for contaminants such as organic and inorganic chemicals as well as microbiological species. Water Quality Data

These tables show the results of our sampling and monitoring for the period of January 1 to December 31,2010 unless otherwise noted.

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The State of Arizona requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type

Microbiological Contaminants				
Contaminant	MCL	MCLG	Units	Result
Total Coliform Bacteria for Systems that collects > 40 samples per month	No more than 5% of monthly samples can be positive	0	Absent or Present	0%
Fecal Coliform and <i>E. Coli</i>	A routine sample & a repeat sample are total coliform positive, & one is also fecal coliform or <i>E. coli positive</i>	0	Absent or Present	0%

of contamination. Some of our data, though representative, may be more than one year old.

	coliform or E. coli positive			
Turbidity				
TT Requirement	Level Found		Sampl	e Date
Maximum 1 NTU for any single measurement	Highest single measurement: 0.	.43 NTU	Date	:2/24
In any month, at least 95% of samples must be less than 0.3 NTU	Lowest monthly percentage of samples meeting TT standard for technology: 99.99 % of monthly measurements were less than 0	or our y	Month: I	ebruary
Disinfostants				

	MRDL	MRDLG	Units)etec	ted Level Range
Chlorine	4	4	ppm			0.33-2.30
Disinfection Byproducts						
Contaminant	MCL	MCLG	Units	Avera	ge	Range
Haloacetic Acids (HAA)	60	N/A	ppb	23.9		ND-80
Total Trihalomethanes (TTHM)	80	N/A	ppb	46.6	5	2.1-110
Bromate	10	N/A	ppb	1.17	,	ND-8.5

lotal Organic Cal	rbon		
Contaminant	Compliance Factor (measurements should not be lower than this factor)	Lowest Running Annual Average (compliance factor)	Running Annual Average Range for theYear (compliance factor
Total Organic Carbon (TOC) Removal Ratio		1.24	1.24-1.58



Inorganic Contaminants			
Contaminant	MCL	Units	Level Detected/Range
Arsenic	10	ppb	ND-9.8
Barium	2	ppm	0.0034-0.13
Chromium	100	ppb	ND-19
Fluoride	4	ppm	ND-0.94
Nitrate (as Nitrogen)	10	ppm	ND-9.6
Selenium	50	ppb	ND-4.2
Contract Contract			

Secondary Contaminants	ı	
Contaminant	Units	Level Detected/Range
Alkalinity	ppm	40-206
Hardness as CaCO ₃	ppm gr/gal*	41-330 2.4-19.3
Iron	ppm	ND-0.1
Temperature	°C	12.1-31.3
рН	s.u.**	7.31-8.54
Chloride	ppm	10-420
Langlier Index	N/A	-0.07-0.52
Sodium	ppm	52-240
Sulfate	ppm	36-260
Total Dissolved Solids	ppm	400-1200
*The standard measure for hardness as calcium carbonate (CaCO3)	is either gr/gal (grai	ns per gallon) or ppm. 1 gr/gal

of hardness is equivalent to 17.1 ppm of hardness
**The standard measure for pH is standard units (

Contaminant	AL	ALG	Units	90th Percentile	Number of Sites over AL	Violation (Yes or No)
Copper	1.3	1.3	ppm	0.23	0	No
Lead	15	0	ppb	1.9	0	No
Unregulated Contaminant	Monit	lovina I	Dogulatio	- 2 (LICMD 2)		

Contaminant	MCL	MCLG	Units	Detected Level Range
N-nitrosodiethylamine (NDEA)	N/A	N/A	ppb	ND-6.1
N-nitrosodimethylamine (NDMA)	N/A	N/A	ppb	ND-10

Health Effects Language

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods-of-time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

If arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects 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.

Lead and Copper monitoring: In 2010, the Town of Gilbert did triennial monitoring for lead and copper. Lead enters drinking water primarily as a result of the corrosion, or wearing away of materials containing lead in the distribution system and household plumbing. EPA requires water suppliers to sample for lead and copper from the cold water taps inside homes. We tested 54 households and pleased to report that all sites are below federal drinking water action level for lead and copper. To reduce exposure to lead in drinking water, let the water run from the tap for about 15-30 seconds. Do not cook with or drink water from the hot water tap. 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. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA Safe Drinking Water Hotline at

Unregulated Contaminant Monitoring Regulation (UCMR) 2: UCMR is a tool for the US EPA to monitor unregulated contaminants of concern in the nation's drinking water. Under UCMR 2 EPA has selected 25 contaminants. These substances include 3 Acetanilide parent Herbicides, 6 Acetanilide Herbicide Degradates, 6 Nitrosamines, 2 priority compound (1 insecticide and 1 insecticide degradate), 5 flame retardants, and 3 explosives. Town of Gilbert conducted sampling from November, 2009 to

Definitions

AL(G) = Action Level (Goal) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements. MCL = Maximum Contaminant Level - The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water.

MCLG = Maximum Contaminant Level Goal - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health.

MRDL = Maximum Residual Disinfectant Level. MRDLG = Maximum Residual Disinfectant Level Goal. NA = Not Applicable, sampling was not completed by regulation or was not required. NTU = Nephelometric Turbidity Units, a measure of water clarity. PPM* = Parts per million or Milligrams per liter (mg/L). $PPB^* = Parts \ per \ billion \ or \ Micrograms \ per \ liter \ (\mu g/L).$

*ppm x 1000 = ppb; ppb x 1000 = pptTT = Treatment Technique - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Este informe contiene información muy importante sobre su agua potable. Si desea una copia de este informe en español o tiene alguna pregunta sobre el, por favor llame a 480-503-6383.

SOURCE WATER ASSESSMENT

In 2004, ADEQ completed a Source Water Assessment (SWA) for the 12 groundwater wells (at the time of the assessment) and one WTP used by the Town of Gilbert. The assessment reviewed and evaluated adjacent land uses to the aforementioned locations that may pose a potential risk to water, and the quality thereof, served to the community from those sources. These risks may include, but are not limited to, gas stations, landfills, dry cleaners, and agriculture fields.

The result of the SWA led to 10 sources receiving a low risk susceptibility to water rating and three identified as high risk. Those sites receiving a high risk designation are located in proximity to a gas station, agriculture field, and an industrial park. None of the locations, including those with a low risk assessment, have detected contamination; however, the Town remains vigilant in their monitoring to ensure the best water quality is served to our community. Residents can help protect source water by taking hazardous household chemicals to hazardous material collection sites (www.gilbertaz.gov/pw/hhw.cfm) and by limiting the amount of pesticide and fertilizer use in the home.

The SWA is available to the public by request from the Town of Gilbert Clerk's Office or visit the ADEQ's SWA Unit website at www.azdeq.gov/environ/water/dw/swap.html for an

DRINKING WATER - POSSIBLE CONTAMINATION SOURCES

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. In order to ensure that tap water is safe to drink, the U.S. EPA and the State of Arizona prescribe regulations that limit the amount of certain contaminants in the water provided by public water systems as drinking water. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants in tap water and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 800/426-4791. Information on bottled water can be obtained from the U.S. Food and Drug Administration (FDA).

As water travels over the surface of the land or through the ground it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Inorganic contaminants include salts and metals that can be naturally occurring in the makeup of soil and runoff from erosion. In addition, nitrate is found in fertilizer and
- Microbial contaminants include viruses or bacteria that may come from agricultural livestock operations or wildlife. Organic chemical contaminants include synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production that may come from
- places such as gas stations and urban stormwater runoff.
- animal wastes. These analyses and species are tested in the WTP filtration process, in the distribution system, and at source water points of entry into the distribution system to ensure the effectiveness of water treatment and proper disinfection. Pesticide and herbicide contaminants may come from agriculture, urban stormwater runoff, and residential use.
 - Radioactive contaminants may be naturally occurring or can be the result of oil/gas production and mining activities. Turbidity is a measure of the cloudiness of the water. It is measured because it is a good indicator of water quality, and high levels of turbidity can hinder the effectiveness of
 - * Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno compromised persons such a persons with cancer undergoing

chemotherapy; persons who have undergone organ transplants; persons 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 U.S. EPA and the Center 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 at 800/426-4971. **DRINKING WATER SOURCE**

$Surface\ water is\ a\ primary\ water\ source\ for\ the\ Town\ of\ Gilbert.\ Surface\ water\ is\ supplied\ via\ canal\ system\ from\ the\ Salt\ River\ Project\ (SRP)\ and\ system\ supplied\ via\ canal\ system\ from\ the\ Salt\ River\ Project\ (SRP)\ and\ system\ supplied\ via\ canal\ system\ from\ the\ Salt\ River\ Project\ (SRP)\ and\ system\ supplied\ via\ canal\ system\ from\ supplied\ via\ supplied\ via$

 $Central\ Arizona\ Project\ (CAP).\ SRP\ manages\ several\ dams\ and\ reservoirs\ on\ the\ Salt\ and\ Verde\ rivers.\ Water\ collected\ from\ these\ rivers\ into\ property and\ property\ from\ these\ fivers\ into\ property\ from\ propert$ reservoirs is released into SRP canals. CAP's 336 mile long system carries Colorado River water from Lake Havasu, through Phoenix, to south **WATER TREATMENT**

The Town of Gilbert has two drinking water treatment plants:

North Water Treatment Plant (NWTP): Called NWTP due to it's location in the north side of the town. NWTP is situated on the eastern canal receiving water from the SRP (mixture of salt river and verde river). Water delivered from the NWTP is treated using the conven-

 $tional\ methods\ of\ coagulation,\ flocculation,\ sedimentation,\ and\ filtration.\ The\ NWTP\ can\ produce\ as\ much\ as\ 45\ million\ gallons\ of\ water$ per day (MGD) and has a 16 million gallon (MG) reservoir onsite for water storage. Santan Vista Water Treatment Plant (SVWTP): Called Santan Vista because of the stunning view of the Santan mountains from the plant control room. This plant is receiving water from CAP (Colorado river watershed). From CAP turnout, water is brought to the plant

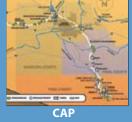
through approximately 14 miles of 48" ductile iron pipeline. This plant is built and operating in partnership with City of Chandler. Initial capacity for this plant is 24 MGD; 12 MGD for the town and 12 MGD for the City of Chandler. This plant is treating the water using ballasted Ground water availability from wells is nearly 44 MGD, not including reservoir storage, and is also delivered to the customers via the distribu-

tion system that uses chlorine as disinfectant. Groundwater is pumped from 18 wells located throughout the town. Groundwater is used to meet

Our staff works to ensure compliance with all drinking water regulations and helps with new rule implementation.

the high demand and during canal dry outs for maintenance. Groundwater can be pumped directly in the distribution systems or can be used to fill a reservoir. In total, the Town of Gilbert can produce approximately 101 MGD and has storage capacity of just over 45 MG and can more than meet the demands from the community which has now grown to over 220,000 residents. Town of Gilbert Water Quality Staff collects and analyzes the drinking water you receive at your home or business. These tests ensure that your water meets health and safety standard set by the state and federal government. Town of Gilbert has the State certified laboratory that analyzes daily process, distribution and regulatory compli-







ance samples. Each month, the staff collects 150 bacteriology samples and monitors chlorine level in the distribution system to control microbial activity.



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