

CITY OF SOUTH PASADENA 2009 CONSUMER CONFIDENCE REPORT

INTRODUCTION

The City of South Pasadena is committed to keeping you informed about the quality of your drinking water. This report is provided to you annually. It includes information describing where your drinking water comes from, the constituents found in your drinking water and how the water quality compares with the regulatory standards. We are proud to report that during 2009, the drinking water provided by the City of South Pasadena met or surpassed all Federal and State drinking water standards. We remain dedicated to providing you with a reliable supply of high quality drinking water.

Regularly scheduled meetings of the City of South Pasadena City Council are held on the first and third Wednesday of each month at 7:30 PM at 1424 Mission Street, South Pasadena, CA 91030. The meetings provide an opportunity for public participation in decisions that may affect the quality of your drinking water.

WHERE DOES MY DRINKING WATER COME FROM?

The water supply for the City of South Pasadena comes from two sources: (1) groundwater from wells in the Main San Gabriel Groundwater Basin and (2) surface water imported by Metropolitan Water District of Southern California (MWD) from the Colorado River and from Northern California. The City of South Pasadena adds chlorine to the pumped groundwater while MWD filters and chlorinates imported surface water.

WHAT ARE WATER QUALITY STANDARDS?

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

Drinking water standards established by USEPA and CDPH set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

- **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 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.
- **Primary Drinking Water Standard:** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.
- **Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.
- **Notification Level (NL):** An advisory level which, if exceeded, requires the drinking water system to notify the governing body of the local agency in which users of the drinking water reside (i.e. city council, board of directors, and county board of supervisors).

WHAT IS A WATER QUALITY GOAL?

In addition to mandatory water quality standards, USEPA and CDPH have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart in this report includes three types of water quality goals:

- **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 USEPA.

- **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.
- **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.

WHAT CONTAMINANTS MAY BE PRESENT IN SOURCES OF DRINKING WATER?

The sources of drinking water generally 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.
- **Radioactive contaminants,** that can be naturally-occurring or be the result of oil and gas production and mining activities.
- **Organic chemical contaminants,** including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.

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).

ARE THERE ANY PRECAUTIONS THE PUBLIC SHOULD CONSIDER?

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. 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).

ABOUT NITRATE

Although nitrate in your drinking water never exceeds the MCL of 45 milligrams per liter (mg/l), 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 for advice from your health care provider.

DRINKING WATER FLUORIDATION

In November 2007, MWD joined a majority of the nation's public water suppliers by adding fluoride to drinking water in order to prevent tooth decay. In line with recommendations from CDPH, as well as the U.S. Centers for Disease Control and Prevention, MWD began adjusting the natural fluoride level in imported water, which ranges from 0.1 to 0.4 parts per million (ppm), to the optimal range of 0.7 to 1.3 ppm. Fluoride

levels in drinking water are limited under California state regulations at a maximum dosage of 2 ppm.

The City of South Pasadena does not add additional fluoride to the local water delivered to you because fluoride occurs naturally in groundwater. As shown on the water quality table, the average fluoride concentration in the City's groundwater is 0.72 ppm.

You can obtain more information about fluoridation at the CDPH website:

cdph.ca.gov/drinkingwater/Pages/Fluoridation.aspx

WHAT IS IN MY DRINKING WATER?

Your drinking water is regularly tested using CDPH-approved methods to ensure its safety. The table in this report lists all the constituents **detected** in your drinking water that have Federal and State drinking water standards. **Detected** unregulated constituents and other constituents of interest are also included.

LEAD IN TAP WATER

If present, elevated levels of lead can cause serious 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. The City of South Pasadena 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 USEPA Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

DRINKING WATER SOURCE ASSESSMENT

In accordance with the federal Safe Drinking Water Act, an assessment of the drinking water sources for the City of South Pasadena was completed in December 2002. The purpose of the drinking water source assessment is to promote source water

protection by identifying types of activities in the proximity of the drinking water sources which could pose a threat to the water quality. The assessment concluded that City of South Pasadena's groundwater wells are considered most vulnerable to the following activities or facilities associated with contaminants detected in the water supply: dry cleaners, gas stations, automobile repair shops, high density housing and medical/dental office/clinics. In addition, the groundwater wells are considered most vulnerable to the following facility not associated with contaminants detected in the water supply: leaking underground storage tanks. A copy of the complete assessment is available at the City of South Pasadena Water Department at 825 Mission Street, South Pasadena, CA 91030. You may request a summary of the assessment to be sent to you by contacting Mr. Marcelino Aguilar at 626-403-7376.

In addition, in December 2002, MWD completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD by phone at 213-217-6850.

QUESTIONS?

For more information or questions regarding this report, please contact Mr. Marcelino Aguilar at 626-403-7376.

Este informe contiene información muy importante sobre su agua potable. Para mas información ó traducción , favor de contactar a Mr. Marcelino Aguilar at 626-403-7376

這份報告包含有關閣下飲用水水質的重要資訊，請找他人為你翻譯及解釋清楚。如果您有任何問題，或是須要更多資訊，請聯絡

Mr. Marcelino Aguilar 626-403-7376



CITY OF SOUTH PASADENA

2009 WATER QUALITY TABLE

CONSTITUENTS AND MEASUREMENT UNITS	MCL OR [MRDL]	PHG (MCLG) OR [MRDLG]	DLR	GROUNDWATER SOURCES			SURFACE WATER SOURCE			TYPICAL ORIGINS
				Result (a)	Range	Most Recent Sampling	Result (a)	Range	Most Recent Sampling	
PRIMARY DRINKING WATER STANDARDS--Health-Related Standards										
Filter Effluent Turbidity (NTU) (b)	TT = 1 NTU	NA	NA	NR			0.06	--	Continuous Testing	Soil runoff
	TT = 95% of samples ≤0.3 NTU						100%	--		
DISINFECTANT AND DISINFECTION BYPRODUCTS (c)										
Total Trihalomethanes (TTHM) (µg/l)	80	NA	0.5	7.0	ND - 19	Quarterly	MCL Compliance Determined from Testing in the South Pasadena Distribution System			By-product of drinking water disinfection
Haloacetic acids (five) (HAA5) (µg/l)	60	NA	1	7.1	ND - 10	Quarterly				By-product of drinking water disinfection
Chloramines Residual (mg/l)	[4]	[4]	NA	1.7	0.3 - 2.0	Weekly				Drinking water disinfectant
Chlorine Residual (mg/l)	[4]	[4]	NA	0.4	0.1 - 0.6	Weekly				Drinking water disinfectant
ORGANIC CHEMICALS										
Tetrachloroethylene (PCE) (µg/l)	5	0.06	0.5	2.4	2.0 - 3.1	Weekly	ND	2009	Discharge from industrial activities	
Trichloroethylene (TCE) (µg/l)	5	1.7	0.5	0.9	0.6 - 1.2	Weekly	ND	2009	Discharge from industrial activities	
INORGANIC CHEMICALS										
Aluminum (mg/l)	1	0.6	0.05	ND	ND	2009	0.16	0.11 - 0.24	2009	Used for filtration treatment of surface water
Arsenic (µg/l)	10	0.004	2	ND	ND	2009	2.2	ND - 2.5	2009	Erosion of natural deposits
Barium (µg/l)	1,000	2,000	100	ND	ND	2009	120	110 - 140	2009	Erosion of natural deposits
Copper (mg/l) (d)	AL = 1.3	0.3	0.05	0.53	--	2009	NR	2009	Corrosion of household plumbing system	
Fluoride (mg/l) Naturally-occurring	2	1	0.1	0.72	0.40 - 0.97	2009	NR	2009	Erosion of natural deposits	
Fluoride (mg/l) Treatment-related	Optimal Range 0.7 - 1.3 mg/l				NR		0.8	0.7 - 0.9	2009	Water additive for dental health
Lead (µg/l) (d)	AL = 15	0.2	5	ND	--	2009	NR	2009	Corrosion of household plumbing system	
Nitrate as NO3 (mg/l)	45	45	2	23	21 - 35	Weekly	1.7	0.9 - 1.9	2009	Leaching from fertilizer use
RADIOACTIVITY										
Gross Alpha Particle Activity (pCi/l)	15	(0)	3	ND	ND - 7.5	2007	5.2	ND - 7.6	2008	Erosion of natural deposits
Gross Beta Particle Activity (pCi/l)	50	(0)	4		NR		4.2	ND - 9.7	2008	Decay of natural and man-made deposits
Uranium (pCi/l)	20	0.43	1	4.8	ND - 7.0	2007	2.9	2.4 - 3.4	2008	Erosion of natural deposits
SECONDARY DRINKING WATER STANDARDS--Aesthetic Standards, Not Health-Related										
Aluminum (µg/l)	200	600	50	ND	ND	2009	160	110 - 240	2009	Used for treatment of MWD surface water
Color (Units)	15	NA	3	ND	ND	2009	2	1 - 2	2009	Naturally occurring organic materials
Chloride (mg/l)	500	NA	0.5	35	19 - 53	2009	98	89 - 100	2009	Runoff/leaching from natural deposits
Odor-Threshold (Units)	3	NA	1	1	1 - 2	2009	2	2	2009	Naturally occurring organic materials
Specific Conductance (µmho/cm)	1,600	NA	NA	523	380 - 770	2009	1,000	850 - 1,100	2009	Substances that form ions in water
Sulfate (mg/l)	500	NA	0.5	58	39 - 74	2009	240	180 - 260	2009	Runoff/leaching from natural deposits
Total Dissolved Solids (mg/l)	1,000	NA	NA	327	238 - 500	2009	620	510 - 660	2009	Runoff/leaching from natural deposits
Turbidity (NTU)	5	NA	0.1	0.1	ND - 1.0	2009	0.06	0.05 - 0.06	2009	Soil runoff
Zinc (µg/l)	5,000	NA	50	73	ND - 220	2009	ND	ND	2009	Runoff/leaching from natural deposits

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				Result (a)	Range	Most Recent Sampling	Result (a)	Range	Most Recent Sampling	
UNREGULATED CHEMICALS										
1,2,3-Trichloropropane (1,2,3-TCP) (ng/l)**	NL = 5	NA	5	13	ND - 23	2009	NR			Discharge from industrial or agricultural activities
N-Nitrosodimethylamine (NDMA) (ng/l)***	NL=10	3	2		NR		ND	ND - 3.0	2009	By-product of drinking water disinfection
OTHER CONSTITUENTS OF INTEREST (d)										
Hardness as CaCO3 (mg/l)	NA	NA	NA	173	110 - 290	2009	280	230 - 310	2009	Runoff/leaching from natural deposits
Sodium (mg/l)	NA	NA	NA	34	28 - 37	2009	99	84 - 100	2009	Runoff/leaching from natural deposits

NOTES

mg/l = parts per million or milligrams per liter
 µg/l = parts per billion or micrograms per liter
 ng/l = parts per trillion or nanograms per liter
 pCi/l = picoCuries per liter
 µmho/cm = micromhos per centimeter
 NTU = Nephelometric Turbidity Units

AL = Action Level
 DLR = Detection Limit for the Purpose of Reporting
 MCL = Maximum Contaminant Level
 MCLG = Maximum Contaminant Level Goal
 MRDL = Maximum Residual Disinfectant Level
 MRDLG = Maximum Residual Disinfectant Level Goal

ND = Not Detected at DLR
 NA = No Applicable Limit
 NL = Notification Level
 NR = Not Required to be Sampled
 PHG = Public Health Goal

- (a) The results reported in the table are average concentrations of the constituents detected in your drinking water during year 2009 or from the most recent tests, except for filter effluent turbidity, TTHM, HAA5, lead and copper which are described below.
- (b) Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. It is a good indicator of the effectiveness of the water filtration system. The table gives the highest single turbidity measurement that was recorded and the lowest monthly percentage of samples meeting the requirements of the Treatment Technique. All of the turbidity measurements were less than 0.3 NTU.
- (c) Samples were collected in the City of S. Pasadena distribution system. The running annual averages and the range of the individual results for TTHM and HAA5 are reported.
- (d) The samples were collected in October 2009 at the tap. The 90th percentile concentration is reported in the table. Out of 30 residences sampled, copper was detected at or above the DLR in 21 samples but none exceeded the Action Level. Lead was detected in one sample above the DLR but below the Action Level at 8.7 ppb.

* Aluminum also has a secondary MCL of 0.2 mg/l.

** 1,2,3-Trichloropropane (1,2,3-TCP) was detected at two wells at concentrations above the Notification Level (NL). NL is an advisory level which, if exceeded, requires the drinking water system to notify the governing body of the local agency in which users of the drinking water reside. Water from these wells was blended with water that had no 1,2,3-TCP detection. The highest concentration of 1,2,3-TCP detected in the distribution system was three times the NL. DHS recommends source removal if 1,2,3-TCP is detected over 100 times the NL.

*** N-Nitrosodimethylamine (NDMA) is a byproduct formed during Metropolitan Water District's (MWD) surface water treatment disinfection using chlorine and ammonia, called chloramines. MWD tested for NDMA and other unregulated chemicals as part of the USEPA Unregulated Contaminant Monitoring Rule (UCMR). Complete results of UCMR testing can be obtained from Dr. Mic Stewart at (213) 217-5696.

**For more information or questions, please contact Mr. Marcelino Aguilar, City of South Pasadena, 825 Mission Street, South Pasadena, CA 91030.
 Phone: (626) 403-7376**