

# CITY OF POWAY ANNUAL WATER QUALITY REPORT 2003

PARAMETER	UNITS	STATE MCL	PHG [MCLG]	TREATED WATER BEFORE DISTRIBUTION SYSTEM		TREATED WATER AFTER DISTRIBUTION SYSTEM		LAKE POWAY WATER		IMPORTED WATER		MAJOR SOURCES OF CONTAMINATION IN DRINKING WATER
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
<b>PRIMARY STANDARDS- Mandatory Health Related Standards Established by the State of California, Department of Health Services</b>												
<b>CLARITY</b>												
Turbidity	NTU %	0.3 (TT) 95 (a)	NA NA	Highest Reading = 0.12 % < 0.3: 100%		0.084 % < 0.3: 100%		NA NA	NA NA	NA NA	NA NA	Soil runoff
<b>INORGANIC CHEMICALS</b>												
Aluminum	ppm	1	0.6	0.085	<0.05 - 0.125	NC	NC	<0.05	<0.05 - <0.05	<0.05	<0.05 - <0.05	Residue from treatment processes
Arsenic	ppb	50	NA	NC	NC	NC	NC	2.42	2.42	2.2	<2.0 - 2.9	Erosion of natural deposits
Fluoride	ppm	2	1	NC	NC	NC	NC	0.26	0.26	0.23	0.18 - 0.28	Erosion of natural deposits
Nitrate (as Nitrogen)	ppm	10	10	NC	NC	0.30	<0.20 - 0.63	<0.20	<0.20 - 0.36	<0.4	<0.4	Runoff & leaching from fertilizer use
<b>RADIOACTIVITY</b>												
Gross Alpha	pCi/L	15	NA	NC	NC	NC	NC	<3	<3	3.68	3.23 - 4.19	Erosion of natural deposits
Gross Beta	pCi/L	50	NA	NC	NC	NC	NC	4.70	4.70	5.33	<4.00 - 7.23	Decay of natural deposits
Uranium	pCi/L	20	0.5	NC	NC	NC	NC	2.73	2.73	2.52	<2.0 - 3.68	Erosion of natural deposits
<b>MICROBIOLOGICAL</b>												
Total Coliform Bacteria	(b)	5.0%	[0]	0%	0%	0%	0%	NA	NA	NA	NA	Naturally present in environment
Fecal Coliform and <i>E. coli</i>	(b)	(b)	[0]	0%	0%	0%	0%	NA	NA	NA	NA	Human and animal fecal waste
<b>DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS</b>												
Total Trihalomethanes (TTHM's) (c)	ppb	80	NA	NC	NC	63.1	34.6 - 67.7	NC	NC	NC	NC	By-product of water chlorination
Haloacetic acids (HAA's) (c)	ppb	60	NA	NC	NC	20.9	9.78 - 31.7	NC	NC	NC	NC	Disinfection by-product
Chlorine Residual as Chloramine	ppm	4.0	4.0	NA	NA	2.56	0.12 - 3.76	NA	NA	NA	NA	Disinfectant added for treatment
<b>SECONDARY STANDARDS- Aesthetic Standards Established by the State of California, Department of Health Services</b>												
Aluminum	ppb	200	600	85	< 50 - 125	NC	NC	<50	<50 - <50	<50	<50 - <50	Residue from treatment processes
Chloride	ppm	500	NA	NC	NC	NC	NC	85.0	85.0	76	70 - 85	Runoff / leaching of natural deposits
Color	units	15	NA	NC	NC	<1	<1 - 2	6	6	4	2 - 7	Naturally occurring organic materials
Specific Conductance	µmho/cm	1600	NA	NC	NC	NC	NC	842	842	812	728 - 897	Substances that form ions in water
Sulfate	ppm	500	NA	NC	NC	NC	NC	190	190	175	146 - 200	Runoff / leaching of natural deposits
Total Dissolved Solids	ppm	1000	NA	NC	NC	NC	NC	525	525	487	433 - 542	Runoff / leaching of natural deposits
Turbidity	NTU	5	NA	0.07	0.04 - 0.12	0.084	0.048 - 0.295	0.262	0.262	0.79	0.57 - 1.1	Soil runoff
<b>UNREGULATED CONTAMINANTS - May become regulated in the future</b>												
Boron	ppb	NA	AL=1000	NC	NC	NC	NC	<100	<100	140	120 - 150	Erosion of natural deposits
Perchlorate	ppb	NA	AL=4	NC	NC	NC	NC	<4	<4	<4	<4	By-product of industrial processes
Vanadium	ppb	NA	AL=50	NC	NC	NC	NC	11.2	11.2	<3	<3 - 3.1	Erosion of natural deposits
<b>OTHER PARAMETERS</b>												
Alkalinity	ppm	NA	NA	NC	NC	NC	NC	113	113	114	106 - 126	
Calcium	ppm	NA	NA	NC	NC	NC	NC	59.9	59.9	55	48 - 63	Runoff / leaching of natural deposits
Hardness as calcium carbonate	ppm	NA	NA	NC	NC	NC	NC	248	248	232	207 - 260	Leaching from natural deposits
Magnesium	ppm	NA	NA	NC	NC	NC	NC	27.5	27.5	23	20.5 - 25	Runoff / leaching of natural deposits
Phosphorus	ppm	NA	NA	NC	NC	NC	NC	<0.20	<0.20 - 0.048	NA	NA	
Potassium	ppm	NA	NA	NC	NC	NC	NC	5.91	5.91	3.9	3.6 - 4.2	
Sodium	ppm	NA	NA	NC	NC	NC	NC	90.3	90.3	75	66 - 83	Runoff / leaching of natural deposits
<b>LEAD AND COPPER RULE</b>												
Copper	ppm	AL=1.3	0.17	(90th percentile = 0.065)		0.046	<0.001 - 0.582	0 out of 30 above AL (no violations)				Corrosion of household plumbing systems
Lead	ppb	AL=15	2	(90th percentile = 1)		1.3	<1 - 33	1 out of 30 above AL (no violations)				
<b>ABBREVIATIONS:</b>												
AL = Action Level												
NA = Not Applicable												
NC = Not Collected												
ND = None Detected												
NS = No Standard												
NTU = Nephelometric Turbidity Units												
pCi/L = pico Curies per liter												
ppm = parts per million (mg/L)												
ppb = parts per billion (ug/L)												
TT = Treatment Technique												
µmhos/cm = micromhos/centimeter												
<b>DEFINITIONS and NOTES:</b>												
<b>MAXIMUM CONTAMINANT LEVEL (MCL):</b> 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.												
<b>MAXIMUM CONTAMINANT LEVEL GOAL (MCLG):</b> 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.												
<b>PUBLIC HEALTH GOAL (PHG):</b> 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.												
<b>PRIMARY DRINKING WATER STANDARD (PDWS):</b> MCLs for contaminants that affect health along with their monitoring, treatment, and reporting requirements.												
<b>TREATMENT TECHNIQUE (TT):</b> A required process intended to reduce the level of a contaminant in drinking water.												
<b>REGULATORY ACTION LEVEL (AL):</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.												
<b>(a) TURBIDITY:</b> A measure of the cloudiness of water; indicates effectiveness of the filtration system. Must be less than 0.3 NTU in 95% of monthly readings, and always less than 5.0 NTU.												
<b>(b) MICROBIOLOGICAL:</b> No more than 5.0% of monthly samples may be total coliform-positive. Two consecutive positives, one being E-coli, is a violation. No MCL violations in 2003 occurred.												
<b>(c) TTHM and HAA averages</b> are for the highest running annual average (RAA) for 2003. RAA is the average of the previous four quarters.												

### ADDITIONAL PUBLIC INFORMATION:

In accordance with the mandate of the Safe Drinking Water Act (SDWA), the Califor Department of Health Services (DHS) has developed the Drinking Water Source Assessment and Protection (DWSAP) Program to evaluate watershed vulnerability to potential contamination sources. The City of Poway completed this assessment in March 2000, and results and documentation are available for public review at the Lester J. Berglund Water Treatment Plant and the DHS District Office (see phone number below).

### Metropolitan Water District (MWD) SOURCE WATER ASSESSMENT:

In December 2002, MWD of Southern California completed its source water assessment of its Colorado River and State Water Project supplies. Colorado Rive supplies are considered to be most vulnerable to urban / storm water runoff, increas 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 contactir Metropolitan by phone at (213) 217 - 6850.

### UNREPORTED WATER QUALITY PARAMETERS:

Only "detected" parameters are included in this report, as required by the State. Over 75 additional water quality parameters were investigated, and not detected at the detection limits required by the State of California.

### LEAD AND COPPER RULE:

Mandated by the EPA effective in 1992, the Rule monitors for lead and copper contamination after the water has left the distribution system. Water is collected fro selected representative household faucets every three years. The most recent sampling was in July, 2001, and the next sampling is due in July, 2004.

### METHYL-tert-BUTYL-ETHER (MTBE):

Not detected in Poway water supply. MTBE has been found in some groundwater wells in California. The source is most likely from leaking underground gasoline storage tanks. Poway relies on surface water sources which are less vulnerable to MTBE contamination.

### WATER CONSERVATION TIPS:

- + Fix leaking faucets, hoses, pipes, toilets, sprinklers, etc.
- + Wash full loads only of laundry and dishes.
- + Install water-saving devices in faucets, toilets, showers, and appliances.
- + Water the lawn, garden, and agriculture in the early morning or evening.
- + Use mulch around plants, shrubs, and trees.

### OPPORTUNITY FOR PUBLIC PARTICIPATION:

The City Council meets each Tuesday at 7:00 P.M. in the Council Chambers at City Hall, located at 13325 Civic Center Drive.

### INFORMATIVE WEB SITES:

Environmental Protection Agency (EPA) Office of Water : [www.epa.gov/safewater](http://www.epa.gov/safewater)  
State of California, Department of Health Services (DHS) : [www.dhs.ca.gov/ps/ddw](http://www.dhs.ca.gov/ps/ddw)

### IMPORTANT PHONE NUMBERS:

City of Poway Water Treatment Plant..... (858) 668-4751  
EPA Safe Drinking Water Hotline..... (800) 426-4791  
California DHS, Office of Drinking Water..... (916) 449-5600

**ESPAÑOL:** Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

## **SURFACE WATER SOURCES**

The City of Poway relies on two surface water sources: water that is imported from the San Diego County Water Authority and local rainfall captured by Lake Poway. The imported water comprises the majority of the water needs of the community, accounting for 99.5% of the raw water supply.

The raw water is received from the Northern California Aqueduct and Colorado River Systems. These sources of water are pumped to the Lester J. Berglund Water Treatment Plant and to Lake Poway for storage.

To ensure a safe drinking water supply, the raw water undergoes a series of treatment processes including: coagulation, flocculation, sedimentation, filtration, taste/odor control, corrosion control and disinfection.

These treatment processes ensure that water of the highest quality is available to all our customers.

## **WATER QUALITY MONITORING**

The California Department of Health Services is responsible for enforcing Drinking Water Quality Regulations, as set forth by the United States Environmental Protection Agency (USEPA).

The (USEPA) regulations are composed of primary and secondary standards: Primary standards relate to the protection of public health. These standards specify limits for substances in water that may be harmful to humans if consumed in excess of those limits.

Secondary standards relate to aesthetic qualities of water such as taste, odor, or clarity. These standards specify limits for substances that may influence consumer acceptance of the water.

## **THE DISINFECTION PROCESS**

The City of Poway employs two methods of disinfection. The first, chlorine, effectively eliminates water-borne diseases from the public water supply. The second, chloramines, a combination of chlorine and ammonia, further improves the quality of our water supply and reduces the formation of disinfection-by-products.

## **REQUIRED HEALTH INFORMATION**

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. 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 and Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium (a micro-organism which can cause gastrointestinal illness, but which is eliminated through effective treatment including filtration, sedimentation, and disinfection) and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

Contaminants that may be present in source water include:

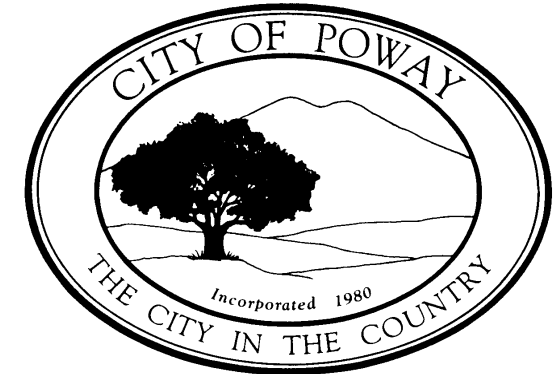
- + Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- + Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater run-off, industrial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

In order to ensure that tap water is safe to drink, USEPA and the California Department of Health Services (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.

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# *City of Poway Annual Water Quality Report - 2003*



We are pleased to send you our 2003 Water Quality Report. This brochure explains how drinking water provided by the City of Poway is of the highest quality. Included is a listing of results from water-quality tests as well as an explanation of where our water comes from and tips on how to interpret the data.

At the City of Poway, we routinely monitor our water supplies for the entire range of elements that have the potential to degrade the quality of your water. If a potential problem is detected, our water treatment personnel take measures to eliminate the problem.

We do not settle for meeting health and safety standards - our goal is to exceed them in every instance. For additional information please call Kevin O'Reilly, Water Treatment Plant Supervisor, at the City of Poway Lester J. Berglund Water Treatment Plant (858) 668-4751.