

ANNUAL  
WATER  
QUALITY  
REPORT

*Water testing performed in 2006*

*Proudly Presented By:*

CITY OF TORRANCE



PWS ID#: CA1910213

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

## Where Does My Water Come From?

The City of Torrance Municipal Water Utility serves approximately 110,000 residents. In 2006, the Municipal Water Utility distributed approximately 24,600 acre-feet of drinking water to its customers, or approximately 8.0 billion gallons. One acre-foot of water is equivalent to 326,000 gallons or an acre of land covered with one foot of water. Torrance purchased 90% of the total potable water supply from the Metropolitan Water District of Southern California (MWD), a regional wholesaler of imported surface water. This water originates from two sources: (1) the Colorado River, via the 242-mile Colorado River Aqueduct and (2) Northern California, via the 441-mile California Water Aqueduct. The Metropolitan Water District performs advanced multi-stage treatment of imported water in five regional treatment plants. The remaining 10% of the municipal potable supply came from our state-of-the-art groundwater desalination project.

## What Affects the Taste of My Water?

The taste of drinking water is affected by its mineral content as well as the presence of chlorine, which is used to protect against potential bacterial contamination. Sometimes plumbing can cause a metallic flavor, especially if the water has been sitting in the pipes for many hours. Taste, however, does not necessarily indicate a higher or lower degree of water quality.

## Continuing Our Commitment

The City of Torrance is pleased to present our annual water quality report. This edition covers all testing completed from January through December 2006. We are pleased to inform you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users. Included is information about where the water comes from, what is in it and how it compares with the regulatory standards set by the U.S. Environmental Protection Agency (U.S. EPA) and the California Department of Health Services (CDOHS). This report will better inform you about your drinking water and the challenges in delivering a high-quality supply of drinking water to your home.

For more information about this report, or for any questions relating to your drinking water, please call Alan Berndt, Senior Water Service Supervisor, at (310) 781-6900.

## Community Participation

The Torrance Water Commission meets the third Thursday of each month beginning at 7:00 p.m. at the West Annex of City Hall, 3031 Torrance Boulevard, Torrance. You are invited to participate in our public forum and voice your concerns about your drinking water.

## Source Water Assessment

An assessment of the drinking water source for the city was completed in May 2003. This study was done in compliance with the CDHS Source Water Assessment Program, the goal of which is to determine the water system's vulnerability to possible sources of contamination. The assessment determined that our groundwater is most vulnerable from landfills and dumps, however these potential contamination sources are closely monitored to ensure proper water quality guidelines. For a copy of the complete assessment, contact the City of Torrance Public Works Department at (310) 781-6900 or visit our Web site at [www.torrnet.com/publicworks](http://www.torrnet.com/publicworks).

## Substances That Might Be 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, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State 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, which must provide the same protection for public health. 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.

Contaminants that may be present in source water include:

**Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or can result from urban stormwater runoff, 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 runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or can be the result of oil and gas production and mining activities.

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

### Important Health Information

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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) 426-4791.

### Fluoridation Update

In fall 2007, the Metropolitan Water District of Southern California is scheduled to join a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay.

In line with recommendations from the California Department of Health Services, as well as the U.S. Centers for Disease Control and Prevention, Metropolitan will adjust the natural fluoride level in the water, which ranges from 0.1 to 0.4 parts per million, to the optimal range for dental health of 0.7 to 0.8 parts per million.

Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water.

## Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES				City of Torrance Groundwater		MWD Surface Water			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED <sup>1</sup>	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2004	1	0.6	ND	NA	0.03	ND–0.19	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic <sup>2</sup> (ppb)	2004	10	0.004	ND	NA	ND	ND–2.4	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Bromate (ppb)	2006	10	(0)	ND	NA	6 <sup>3</sup>	3.3–7.2	No	By-product of drinking water disinfection
Chloramines (ppm)	2006	[4.0 (as Cl <sub>2</sub> )]	[4.0 (as Cl <sub>2</sub> )]	1.73 <sup>3</sup>	0.08–2.20 <sup>3</sup>	1.73 <sup>3</sup>	0.08–2.20 <sup>3</sup>	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2004	2.0	1	0.16	0.16–0.16	ND	ND–0.22	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2005	15	(0)	<4.71 <sup>4</sup>	<4.71–<4.71	1.2 <sup>5</sup>	ND–7.2	No	Erosion of natural deposits
Gross Beta Particle Activity <sup>6</sup> (pCi/L)	2005	50	(0)	10 <sup>7</sup>	NA	ND <sup>8</sup>	ND–4.7	No	Decay of natural and man-made deposits
Haloacetic Acids (ppb)	2006	60	NA	12 <sup>8</sup>	ND–40	NA	NA	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2006	45	45	NA	NA	0.46	ND–0.68	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sew-age; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2006	80	NA	32 <sup>8</sup>	ND–73	NA	NA	No	By-product of drinking water chlorination
Total Coliform Bacteria (% positive samples)	2006	More than 5.0% of monthly samples are positive	(0)	0.8 <sup>9</sup>	NA	0.8	NA	No	Naturally present in the environment
Uranium (pCi/L)	2006	20	0.43	ND <sup>7</sup>	NA	ND <sup>8</sup>	ND–1.2	No	Erosion of natural deposits

Tap water samples were collected from 50 sample sites throughout the community 10

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2005	1.3	0.17	0.19	0	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2005	15	2	4	0	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES				City of Torrance Groundwater		MWD Surface Water			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED <sup>1</sup>	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2004	200	NS	ND	NA	0.03	ND-0.19	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2006	500	NS	150	87-180	59	42-98	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2006	15	NS	ND <sup>9</sup>	ND-5	2	1-4	No	Naturally-occurring organic materials
Corrosivity (Units)	2006	Non-corrosive	NS	-0.29 <sup>11</sup>	-0.29- -0.29	12 <sup>12</sup>	11.9- 12.2	No	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Manganese (ppb)	2006	50	NS	20	11-26	NA	NA	No	Leaching from natural deposits
Odor-Threshold (Units)	2006	3	NS	ND <sup>9</sup>	ND-1	2.0 <sup>13</sup>	2.0-2.0	No	Naturally-occurring organic materials
Specific Conductance (µS/cm)	2006	1,600	NS	619	619-619	576	411-829	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2006	500	NS	54	31-78	106	55-162	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2006	1,000	NS	398	244-558	332	236-481	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2006	5	NS	0.16	0.07- 0.61	0.07 <sup>14</sup>	0.05- 0.09	No	Soil runoff

UNREGULATED SUBSTANCES		City of Torrance Groundwater		MWD Surface Water	
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity (ppm)	2006	32	NA	77	63-87
Boron (ppb)	2006	NA	NA	150	ND-210
Calcium (ppm)	2006	37	NA	30	24-42
Magnesium (ppm)	2006	11	NA	14	11-20.5
pH (Units)	2006	7.9	7.5-8.6	8.3	8.1-8.4
Potassium (ppm)	2006	2.3	NA	2.8	2.3-4.0
Sodium (ppm)	2006	58	NA	55	39-91
Total Hardness (ppm)	2006	138	NA	130	110-189
Total Organic Carbon (ppm)	2006	0.97	NA	2.3	1.8-2.8

Footnote:

<sup>1</sup> Year Sampled column represents groundwater data only - all MWD data collected in calendar year 2006.

<sup>2</sup> Effective 01/23/2006, the federal arsenic MCL is 10 ppb. A new state MCL has not yet been adopted and remains at 50 ppb.

<sup>3</sup> Running annual average was calculated from weekly samples.

<sup>4</sup> Gross Alpha also includes Radium 226. Analyzed four consecutive quarters every four years for groundwater only.

<sup>5</sup> Metropolitan conducted four quarters of monitoring from August 2005 to April 2006. Reported results were taken from the first two quarters of 2006.

<sup>6</sup> Effective 6/11/2006, the gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.

<sup>7</sup> Analyzed four consecutive quarters every four years for groundwater only.

<sup>8</sup> Running annual average used to calculate average, range, and MCL compliance. Monitored in the distribution system.

<sup>9</sup> Monitored in the distribution system.

<sup>10</sup> Ninetieth (90th) percentile from the most recent sampling at selected customer taps.

<sup>11</sup> Langlier index used for analysis.

<sup>12</sup> MWD uses the Saturation Index.

<sup>13</sup> MWD has developed a flavor-profile analysis method that can more accurately detect odor occurrences.

<sup>14</sup> Monitored at the source.

## Table Definitions

**Action Level (Regulatory Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**MCL (Maximum Contaminant Level):** 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 (SMCLs) are set to protect the odor, taste and appearance of drinking water.

**MCLG (Maximum Contaminant Level Goal):** 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. EPA.

**µS/cm (microsiemens per centimeter):** A unit expressing the amount of electrical conductivity of a solution.

**MRDL (Maximum Residual Disinfectant Level):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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 U.S. EPA.

**NA:** Not applicable

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NS:** No standard

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**PDWS (Primary Drinking Water Standard):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**PHG (Public Health Goal):** 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 EPA.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.