

ANNUAL

# WATER QUALITY REPORT

*Water testing performed in 2008*



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.

## Meeting The Challenge

The City of Torrance is pleased to present our annual water quality report. This edition covers all testing completed from January through December 2008. We are pleased to tell 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 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 State Department of Public Health (Department). 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.

## 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.

## 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 to voice your concerns about your drinking water.

## Substances That Could Be in 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 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. 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, 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 can 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, 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**, that 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.

## Where Does My Water Come From?

The City of Torrance Municipal Water Utility serves approximately 110,000 residents. In 2008, the Municipal Water Utility distributed approximately 21,245 acre-feet of drinking water to its customers, or approximately 6.9 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 89 percent 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 11 percent of the municipal potable water supply came from one operating well pumping from the West Coast Ground Water Basin and a state-of-the-art groundwater desalter project.

## Source Water Assessment

An assessment of the drinking water source for the city was completed in December 2008. This study was done in compliance with the California Department of Public Health 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 to Historic gas stations and Underground storage tanks. 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).

## What Makes Water Hard?

If substantial amounts of either calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be hard. Hard water does not dissolve soap readily, so making lather for washing and cleaning is difficult. Conversely, water containing little calcium or magnesium is called soft water.

## About Our Violation

In 2005, 2006, and 2007, we did not monitor for the presence of Nitrite and Nitrate from the Madrona Well 2. Upon being notified of this violation by the California Department of Public Health, we immediately analyzed our water supply for both Nitrite and Nitrate. Results of the analysis have been received and properly recorded as required by state and federal law. We do not believe that missing this monitoring requirement had any impact on public health and safety. We have already taken the steps to ensure that adequate monitoring and reporting will be performed in the future so that this oversight will not be repeated.

## Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you can save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

## Questions?

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.

## Lead and Drinking Water

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. We are 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 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



## 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.

A constituent is any naturally occurring or man-made substance found in drinking water. The U.S. EPA and the California EPA establish the list of constituents that require testing and the frequency of each test. All data included in this report was collected in 2008.

### REGULATED SUBSTANCES <sup>1</sup>

SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	PHG (MCLG) [MRDLG]	City of Torrance Monitored at the Source		MWD Monitored at the Source		Monitored in the Distribution System		VIOLATION	TYPICAL SOURCE
			AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
<b>Aluminum</b> (ppm)	1	0.6	ND	NA	.13	.06-.28	NA	NA	No	Erosion of natural deposits; residue from some surface water treatment processes
<b>Arsenic</b> (ppb)	10	0.004	ND	NA	2.4	ND-2.9	NA	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
<b>Barium</b> (ppm)	1	2	.12	.12-.12	.08	ND-.13	NA	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
<b>Bromate</b> (ppb)	10	(0)	NA	NA	NA	NA	7.8	4.4-8	No	By-product of drinking water disinfection
<b>Chloramines</b> (ppm)	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	NA	NA	NA	NA	1.8	.2-2.2	No	Drinking water disinfectant added for treatment
<b>Fluoride</b> (ppm)	2.0	1	.31	.31-.31	1.3	.6-1.3	.70	ND-1.1	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Gross Alpha Particle Activity</b> (pCi/L)	15	(0)	NA	NA	4.7	ND-9.3	NA	NA	No	Erosion of natural deposits
<b>Gross Beta Particle Activity</b> <sup>2</sup> (pCi/L)	50	(0)	NA	NA	2.2	ND-9.7	NA	NA	No	Decay of natural and man-made deposits
<b>Haloacetic Acids</b> (ppb)	60	NA	NA	NA	NA	NA	13.3	ND-24	No	By-product of drinking water disinfection
<b>Methylene Chloride</b> (ppb)	5	4	.5	ND-1.4	NA	NA	NA	NA	No	By-product of drinking water disinfection
<b>Nitrate [as nitrate]</b> <sup>3</sup> (ppm)	45	45	ND	NA	2.50	ND-4.0	NA	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>TTHMs [Total Trihalomethanes]</b> (ppb)	80	NA	NA	NA	NA	NA	39.1	ND-83	No	By-product of drinking water chlorination
<b>Total Coliform Bacteria</b> (% positive samples)	More than 5.0% of monthly samples are positive	(0)	NA	NA	NA	NA	1	NA	No	Naturally present in the environment
<b>Uranium</b> (pCi/L)	20	0.43	NA	NA	2.7	1.6-3.7	NA	NA	No	Erosion of natural deposits

### Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	AMOUNT DETECTED (90TH% TILE)			SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
	AL	PHG				
<b>Copper</b> (ppm)	1.3	0.3	0.31	0/100	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead</b> (ppb)	15	2	24	2/100	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

## SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	SMCL	PHG (MCLG)	City of Torrance Monitored at the Source		MWD Monitored at the Source		Monitored in the Distribution System		VIOLATION	TYPICAL SOURCE
			AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Aluminum (ppb)	200	NS	ND	NA	130	60–280	NA	NA	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	500	NS	165	140–220	86	72–104	NA	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	15	NS	NA	NA	2	1–3	<5	<5–5	No	Naturally-occurring organic materials
Corrosivity (Units)	Non-corrosive	NS	12.7	12.7–12.7	12.1	12.0–12.4	NA	NA	No	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Manganese (ppb)	50	NS	34	20–44	ND	NA	NA	NA	No	Leaching from natural deposits
Odor–Threshold (Units)	3	NS	NA	NA	2	2–3	ND	ND–1	No	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1,600	NS	730	500–960	750	516–1090	NA	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	NS	59	50–94	135	47–275	NA	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1,000	NS	538	290–620	438	283–678	NA	NA	No	Runoff/leaching from natural deposits
Turbidity (NTU)	5	NS	.19	.19–.19	.05	.04–.06	.27	.08–1.7	No	Soil runoff

## OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	City of Torrance Monitored at the Source		MWD Monitored at the Source	
	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity (ppm)	220	62–220	98	81–122
Boron (ppb)	170	170–170	160	130–200
Calcium (ppm)	NA	NA	45	23–74
Hexavalent Chromium (ppb)	ND	NA	.15	.10–.51
Magnesium (ppm)	18	13–23	19	11–29
N-Nitrosodimethylamine (ppt)	ND	NA	5.3	ND–16
pH (Units)	8.0	6.1–8.6	8.2	8.0–8.4
Potassium (ppm)	5.3	3.3–7.2	3.7	2.6–5.2
Sodium (ppm)	89	77–100	78	56–109
Total Hardness (ppm)	225	170–280	189	108–300
Total Organic Carbon (ppm)	NA	NA	2.2	1.5–2.5
Vanadium (ppb)	ND	NA	4.4	3.1–5.1

### Footnotes:

<sup>1</sup>We were required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system that have elevated disinfection by-product concentrations. Disinfection by-products (e.g., HAAs and TTHMs) result from continuous disinfection of drinking water and form when disinfectants combine with organic matter that naturally occurs in the source water.

<sup>2</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>3</sup>mg/L as NO<sub>3</sub>.

## Definitions

**AL (Regulatory Action Level):**

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**µS/cm (microsiemens per**

**centimeter):** A unit expressing the amount of electrical conductivity of a solution.

**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.

**MRDL (Maximum Residual**

**Disinfectant Level):** The level of a disinfectant added for water treatment that may not be exceeded

at the customer'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).

**ppt (parts per trillion):** One part substance per trillion parts water (or nanograms per liter).

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