

Annual
WATER
QUALITY
REPORT

Reporting Year 2013



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.

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 2013. 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 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 Public Health (CDPH). 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, Water Operations Superintendent, at (310) 781-6900.

Important Health Information

Our water system treats your water by adding fluoride to the naturally occurring level to help prevent dental caries in consumers. State regulations require the fluoride levels in the treated water be maintained within a range of 0.7-1.3 ppm with an optimum dose of 0.8 ppm. Our monitoring showed that the fluoride levels in the treated water ranged from 0.7 to 1.3 ppm with an average of 0.92 ppm. Information about fluoridation, oral health, and current issues is available from www.cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx

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 or <http://water.epa.gov/drink/hotline>.

Community Participation

The Torrance Water Commission meets the fourth Wednesday of each month beginning at 7:00 pm at the West Annex of City Hall, 3031 Torrance Boulevard. You are invited to participate in our public forum and 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 California 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.

Lead in Home Plumbing

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.

Hydrant Flushing – Better Water Quality

Our message is water conservation, yet you may occasionally see a City of Torrance Water Operations employee opening a fire hydrant in your neighborhood and allowing the water to flow. Although this appears to be a waste of water, this flushing is an essential part of our scheduled preventive maintenance program that ensures the delivery of a safe and high-quality drinking water to our customers. This controlled operation flushes from the water supply system natural sediments and remains of pipe corrosion that may cause color, odor, or taste in the drinking water. System flushing is the most effective and economical solution to cleanse the distribution system and to enhance water quality. After all, we are committed to our responsibility to maintain system integrity and to deliver the highest quality of drinking water to our customers.

Use Water Wisely – It's Essential

California is currently in the midst of one of its worst droughts in recorded history. The City recently reactivated the Stage 1 Level of the City's Conservation Ordinance (Ordinance 3717) prohibiting certain wasteful uses of water. Although most of Southern California has adequate water supplies to meet this year's drought challenges, due to past major investments in supply reliability and conservation programs, it necessary that we all do our part in conserving this limited resource. Here's how:

Do	Don't
Wash only full loads in washers	Water between 9am to 5pm
Check for leaks and fix promptly	Water each area no more than 15 minutes
Add mulch to your landscape	Water no more than 3 times a week
Take shorter showers	Wash down exterior surfaces; use a broom
Install water efficient fixtures	Permit excessive runoff
Landscape with California-friendly plant materials	Wash vehicles, boats, etc., with an open hose

For additional details and conservation rebate information go to:
www.bewaterwise.com or www.TorranceCA.Gov/PublicWorks

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 <http://www.torranceca.gov/publicworks/>.

Where Does My Water Come From?

The City of Torrance Municipal Water Utility serves approximately 115,000 residents. In 2013, the Municipal Water Utility distributed approximately 20,515 acre-feet of drinking water to its customers, or approximately 6.7 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 75% 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 MWD performs advanced multistage treatment of imported water in five regional treatment plants. The remaining 25% of the municipal potable water supply came from one operating well pumping from the West Coast Ground Water Basin and from a groundwater desalination project.

Addendum to the Water Quality Report

Although Methyl tert-Butyl Ether (MTBE) was not detected in the finished water delivered to you, because of the state of the art treatment process, the well head monitoring did detect MTBE and was only reported in the secondary standards of this report. MTBE also has a primary standard that was left off the original report. The table below reflects the concentrations. Although we are not required to report on water that has been through the treatment process, we are informing you that MTBE was detected in the raw water source.

REGULATED SUBSTANCES

			City of Torrance Ground Water		MWD Surface Water		Monitored in the Distribution System			
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Methyl tert-Butyl Ether [MTBE] (ppb)	13	13	2.03	ND-5.2	ND	NA	NA	NA	NO	Leaking underground storage tanks; discharge from petroleum and chemical factories

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 tables below show 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 samples results are from calendar year 2013 or from the most recent sampling as the state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included.

REGULATED SUBSTANCES										
			City of Torrance Ground Water		MWD Surface Water		Monitored in the Distribution System			
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	1	0.6	ND	NA	0.15	0.07–0.23	NA	NA	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic ¹ (ppb)	10	0.004	ND	NA	0.67	ND–2.0	NA	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Benzene (ppb)	1	0.15	0.21	ND–0.67	ND	NA	NA	NA	No	Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills
Chloramines (ppm)	[4.0 (as Cl ₂)]	[4.0 (as Cl ₂)]	NA	NA	NA	NA	1.5	0.02–2.23	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2.0	1	0.27	ND–0.27	0.80	0.7–1.0	0.92	0.7–1.3	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity ² (pCi/L)	15	(0)	0.12	ND–0.7	1	ND–3.0	NA	NA	No	Erosion of natural deposits
Gross Beta Particle Activity ³ (pCi/L)	50	(0)	NA	NA	1.3	ND–6.0	NA	NA	No	Decay of natural and man-made deposits
Haloacetic Acids–Stage 1 (ppb)	60	NA	NA	NA	NA	NA	17.5	0.02–2.23	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	45	45	ND	NA	2.10	1.8–2.3	NA	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L)	5	0.019	0.1	ND–0.48	ND	NA	NA	NA	No	Erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 1 (ppb)	80	NA	NA	NA	NA	NA	53.9	22.1–68.8	No	By-product of drinking water disinfection
Uranium (pCi/L)	20	0.43	0.09	ND–0.27	1.7	ND–2.0	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)	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE				
Copper (ppm)	1.3	0.3	0.15	0/100	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives				
Lead (ppb)	15	0.2	ND	0/100	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 Ground Water		MWD Surface Water		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	153	67-230	NA	NA	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	500	NS	214	170-240	83.3	75-91	NA	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	15	NS	5	5-5	1.3	1.0-2.0	5	0-5	No	Naturally occurring organic materials
Corrosivity (Units)	Noncorrosive	NS	12.6	12.6-12.6	12.2	12.0-12.3	NA	NA	No	Natural or industrially influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Manganese ⁴ (ppb)	50	NS	43	25-57	ND	NA	NA	NA	No	Leaching from natural deposits
Methyl tert-Butyl Ether [MTBE] (ppb)	5	NS	2.03	ND-5.2	ND	NA	NA	NA	No	Leaking underground storage tanks; discharge from petroleum and chemical factories
Odor-Threshold (Units)	3	NS	1	1-1	3.3	3.0-6.0	NA	NA	No	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1,600	NS	821	271-1,182	763	520-900	NA	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	NS	75	59-85	139	44-200	NA	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1,000	NS	602	440-690	453	280-560	NA	NA	No	Runoff/leaching from natural deposits
Turbidity ⁵ (Units)	5	NS	0.04	0.04-0.04	ND	NA	1.02	0.1-2.0	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	City of Torrance Ground Water		MWD Surface Water	
	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity (ppm)	155	52-210	101	76-130
Calcium (mg/l)	112	85-210	47	22-61
Magnesium (mg/l)	34	26-58	19	12-23
N-Nitrosodimethylamine (ng/l)	NA	NA	.001	ND-.005
pH (standard unit)	7.8	7.4-8.1	8.2	8.1-8.4
Potassium (mg/l)	8.7	6.7-12	3.7	2.6-4.4
Sodium (mg/l)	148	76-290	75	57-87
Total Hardness (mg/l)	437	330-750	200	110-250

¹While MWD's drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency 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.

²Gross alpha particle activity standard also includes the radium 226 standard.

³Effective 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.

⁴Manganese was detected above the secondary MCL in in 1 well in 2013. The manganese MCL is set to protect against unpleasant effects such as color, taste, odor, and staining of laundry and plumbing fixtures. A manganese MCL exceedance does not pose a health risk.

⁵Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

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 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable

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

NS: No standard

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).