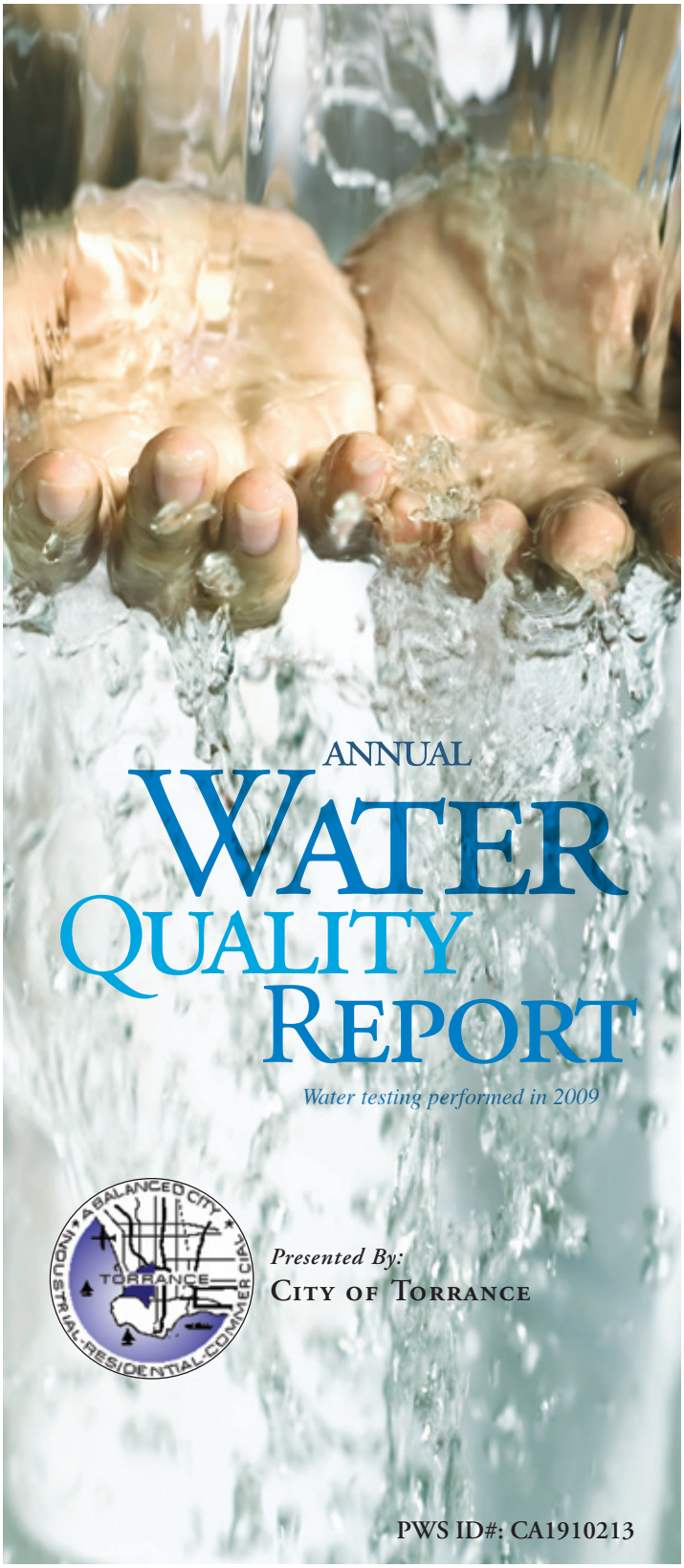

ANNUAL

WATER QUALITY REPORT

Water testing performed in 2009

Presented By:

CITY OF TORRANCE

PWS ID#: CA1910213

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 2009. 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.

Where Does My Water Come From?

The City of Torrance Municipal Water Utility serves approximately 110,000 residents. In 2009, the Municipal Water Utility distributed approximately 20,246 acre-feet of drinking water to its customers, or approximately 6.6 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% 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 multistage treatment of imported water in five regional treatment plants. The remaining 11% 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.

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 or www.epa.gov/safewater/hotline/.

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.

Water Conservation

You can play an important role in conserving our limited water supplies. Although there has been some improvement in key watersheds, California remains in a long-term water shortage situation. The City of Torrance adopted a Water Conservation Ordinance in 2009 to eliminate wasteful uses of water. You can do your part by practicing the following:

DO'S	DON'TS
Run only full loads in washers	Water between 9am to 5pm
Check for leaks and fix promptly	Water for more than 15 minutes
Turn off tap when brushing teeth	Water more than 3 times a week
Take shorter showers	Permit excessive runoff
Add mulch around trees and plants	Delay in fixing leaks
Install water-efficient fixtures	Wash vehicles, boats, etc. with an open hose

Water conservation not only saves water, it saves vital energy supplies and can reduce your water bill.

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 as a waste of water, this 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 natural sediments and pipe corrosion from the water supply system 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 in our responsibility to maintain system integrity and to deliver the highest quality of drinking water to our customers.

> "When the well's dry, we know the worth of water." – *Benjamin Franklin*

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.

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.

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 we 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.

Water Commission Meetings

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.

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. MWD and Distribution results are from calendar year 2009. Groundwater and chemicals of interest results are from 2008-2009.

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	0.14	ND–0.24	NA	NA	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	10	0.004	ND	ND	2.5	ND–3.9	NA	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	1	2	ND	ND–0.12	0.08	ND–0.14	NA	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chloramines (ppm)	[4.0 (as Cl2)]	[4 (as Cl2)]	NA	NA	NA	NA	1.6	0.3–2.2	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2.0	1	0.22	0.13–0.31	0.8	0.6–1.0	0.8	0.2–1.2	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	15	(0)	0.7[1]	ND–3.1	4.7[1]	ND–9.3	NA	NA	No	Erosion of natural deposits
Gross Beta Particle Activity[2] (pCi/L)	50	(0)	NA	NA	2.8	ND–9.7	NA	NA	No	Decay of natural and man-made deposits
Haloacetic Acids (ppb)	60	NA	NA	NA	NA	NA	15	ND–27	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	45	45	ND	NA	2.2	ND–4	NA	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	80	NA	NA	NA	NA	NA	37	ND–82	No	By-product of drinking water chlorination
Total Coliform Bacteria [Total Coliform Rule] (% positive samples)	More than 5.0% of monthly samples are positive	(0)	NA	NA	NA	NA	.02%	0–.02%	No	Naturally present in the environment
Uranium (pCi/L)	20	0.43	ND	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)	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	1.3	0.3	0.19	0/100	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	15	2	4.8	0/100	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

			City of Torrance Ground Water		MWD Surface Water		Monitored in the Distribution System			
SUBSTANCE (UNIT OF MEASURE)	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	200	NS	ND	NA	140	ND–240	NA	NA	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	500	NS	161	120–210	91	77–100	NA	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	15	NS	5	5–5	2	1–2	<5	ND–<5%	No	Naturally occurring organic materials
Corrosivity (Units)	Non-corrosive	NS	12.7	12.7–12.7	12.1	12–12.4	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	ND	ND–53	ND	NA	NA	NA	No	Leaching from natural deposits
Odor–Threshold (Units)	3	NS	1	1–1	2	2–2	ND	ND–1	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	1,600	NS	783	484–984	863	570–1100	NA	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	NS	79	50–110	182	56–260	NA	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1,000	NS	476	310–630	520	310–660	NA	NA	No	Runoff/leaching from natural deposits
Turbidity (Units)	5	NS	0.19	0.19–0.19	0.05	0.04–0.06	0.17	0.04–0.93	No	Soil runoff

UNREGULATED SUBSTANCES AND OTHER CHEMICALS OF INTEREST

	City of Torrance Ground Water		MWD Surface Water	
SUBSTANCE (UNIT OF MEASURE)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity (ppm)	195	170–220	110	84–120
Boron (ppb)	ND	NA	153	120–220
Calcium (ppm)	147	74–220	56	27–76
Chromium VI [Hexavalent Chromium] (ppb)	ND	NA	0.25	0.04–0.63
Magnesium (ppm)	43	23–64	22	11–29
pH (Units)	7.9	7.7–8.1	8.0	7.8–8.3
Potassium (ppm)	9.1	7.2–11	4.1	2.6–5.3
Sodium (ppm)	184	77–290	88	66–100
Total Hardness (ppm)	180	80–280	230	120–310
Total Organic Carbon (ppm)	ND	NA	2.1	1.2–2.6
Vanadium (ppb)	ND	NA	4.2	ND–6.8

[1] Includes Radium 226 Standard.

[2] 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.

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).