



# East Los Angeles District

## 2008 Water Quality Report for the City of Commerce Water System

At California Water Service Company (Cal Water), we are committed to supplying you with high-quality water. We are pleased to provide this annual water quality report, which includes information about where your water comes from, what it contains, how it compares to state and federal standards, and how you can help us conserve water. It also explains the steps we take to protect your water supply.

If you have any questions, suggestions, or concerns, please contact your local Customer Center. Also, please watch for bill inserts, where you will find announcements of any water-related public meetings or workshops, as well as important information about your water. Additional information and time-sensitive announcements about your water can be found at [www.calwater.com](http://www.calwater.com).

### Where Your Water Comes From

Cal Water has provided high-quality water utility services to the area served by the City of Commerce water system since 1985. To meet our customers' needs, we use a combination of local groundwater and purchased water from the Metropolitan Water District of Southern California (MWD), which is imported from the Colorado River and the State Water Project in northern California. The City of Commerce water system includes four wells, 12 booster pumps, five storage tanks, and one MWD connection.

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

In the past two years, Cal Water has completed the construction of two new wellhead treatment facilities. These new facilities are part of our continuing effort to proactively maintain and upgrade facilities and ensure a reliable, high-quality supply.

### Inside Water Quality



A water quality report represents literally hundreds of hours of work by dozens of people. At Cal Water, one of those people is Water Quality Project Manager Tarrah Henrie.

“I’ve always wanted a career that allows me to do good for the community,” says Tarrah. “My first job out of college was working for an environmental consulting firm, and I learned a lot about how interesting and exciting the field is.”

Tarrah’s bachelor’s degree in environmental soil and water science and master’s degree in soil chemistry prepared her for a career in water quality. Since college, she has received certifications in water treatment and distribution, as well as backflow tester and backflow specialist certifications. Tarrah joined Cal Water in 2000.

Tarrah is just one of the highly educated and experienced scientists managing water quality at Cal Water. Says Tarrah, “We have a manager of laboratory services and six full-time scientists — two in the microbiology laboratory, two in the inorganic laboratory, and two in the organic labo-

ratory. There are also six technicians who assist the scientists. Seven additional employees make sure we meet all water quality standards — five water quality project managers who review water-testing data, and two environmental project managers who monitor water discharge. District employees are also very important to water quality. They are the first people to identify an issue, so we certainly rely on them.”

Meeting water quality standards means knowing the ins and outs of copious government regulations, but according to Tarrah, this isn’t the most difficult part of the job. “Monitoring water quality doesn’t stop when the work day ends. Just this month, one of our scientists stayed here until after midnight analyzing samples to ensure that we were meeting standards and doing everything possible to protect public health. Over the Thanksgiving holiday, our microbiologist came in to analyze samples after a water main repair. Project managers have to be available to receive those results and make the best decisions for our customers.”

Tarrah says that if she could pass along just one message about water quality, it would be this: “We work hard to protect our customers, but we need the public’s help, too. Chemicals that go on lawns, down storm drains, and into the trash can eventually end up in somebody’s water. We all have to be vigilant and protect our precious water supply.”

## Drinking Water Source Assessment and Protection Program (DWSAPP)

By the end of 2002, Cal Water had submitted to the California Department of Public Health a DWSAPP report for each water source in the water system. The DWSAPP report identifies possible sources of contamination to aid in prioritizing cleanup and pol-

lution prevention efforts. All reports are available for viewing or copying at our Customer Center.

The water sources in the Commerce system are considered most vulnerable to machine shops, permitted discharges, wastewater, dry cleaners, drinking water treatment plants, existing and historic gas stations, hardware/lumber/parts stores, chemical/petroleum industries, metal plating/fabrication, above-ground and underground storage tanks, automobile body and repair shops, research laboratories, electrical/electronic manufacturing, transportation terminals, transportation corridors, photo processing, furniture manufacturing, known contaminant plumes, dry cleaners, and plastics/synthetics producers.

We encourage customers to join us in our efforts to prevent water pollution and protect our most precious natural resource.

## How to Read This Table

We test your water for more than 100 regulated contaminants. **The table in this report lists only those that were detected.**

The table shows water quality test results divided into two main sections: “primary standards” and “secondary standards.” Primary standards protect public health by limiting the levels of contaminants in drinking water. Secondary standards are limits for substances that could affect the water’s taste, odor, or appearance.

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## Be Water-Wise, Not Water-Wasting!

At Cal Water, we worry about water quality so you don't have to. But when it comes to water supply, we all need to do our share to conserve Earth's most precious resource.

So what can a busy person do to contribute to this very important effort? It's easy! By taking a few simple steps, you can reduce your water use *and* lower your water bill. Look how much water a family of four can save...



A standard **showerhead** uses 2.5 gallons per minute (gpm), while a high-efficiency showerhead uses only 2 gpm.

Water-wasting 4 showers/day x 10 minutes/shower x 2.5 gallons = 100 gallons/day

Water-wise 4 showers/day x 6 minutes/shower x 2 gallons = 48 gallons/day

Total annual savings = 18,980 gallons!

**Tip:** Shorten your showers and install a water-efficient showerhead.

A pre-1993 **toilet** uses 3.5 to 8 gallons per flush, while a modern high-efficiency toilet uses only 1.28 gallons.

Water-wasting 20 flushes/day x 3.6 gallons = 72 gallons/day

Water-wise 20 flushes/day x 1.28 gallons = 26 gallons/day

Total annual savings = 16,790 gallons!

**Tip:** Install a high-efficiency toilet.

A typical **kitchen faucet** uses 4.7 gpm, but a faucet aerator can reduce that to 1.5 gpm.

Water-wasting 15 minutes/day x 2.75 gallons/minute = 41 gallons/day

Water-wise 10 minutes/day x 1.5 gallon/minute = 15 gallons/day

Total annual savings = 9,490 gallons!

**Tip:** Turn off the faucet whenever possible and use a faucet aerator.

A typical **washing machine** uses 37.5 gallons per load, while a high-efficiency machine uses 24.2 gallons.

Water-wasting 12 loads/week x 37.5 gallons/load = 450 gallons/week

Water-wise 8 loads/week x 24.2 gallons/load = 194 gallons/week

Total annual savings = 13,312 gallons!

**Tip:** Wash only full loads and invest in a high-efficiency washing machine.

If you think that's a lot of savings, think about this — 50% or more of the typical household's water is used **outside**. So you can save even more water by...

- Turning off your sprinklers when it rains.
- Reducing the amount of time you run each station.
- Adjusting sprinklers to avoid watering the sidewalk.
- Installing a weather-based controller.
- Replacing your thirsty lawn with drought-tolerant landscaping.

For more on water conservation — including rebates and free water-efficient hardware — visit [www.calwater.com/conservation](http://www.calwater.com/conservation).

# Q & A



*Why do Cal Water employees sometimes open fire hydrants? Isn't that a waste of water?*

This is a process known as “flushing.” When necessary, it is done to remove sediment or sand from the water lines and ensure that water circulates adequately throughout the system. Fire hydrants may also be opened for testing purposes.

*How does dirt or sand get in my water?*

Dirt or sand can occur naturally in groundwater or enter water lines during water-line repair. Flushing helps remove dirt and sand in the water.

*What causes white particles in my water?*

Minerals can build up in water lines, home plumbing, and water heaters. If you notice white particles in your water or your pressure is lower than usual, check your faucet aerators for buildup (if your faucets do not have aerators, visit [www.calwater.com/conservation](http://www.calwater.com/conservation) to have some sent to you at no charge). It is also important to maintain your water heater as directed by the manufacturer.

*What gives my water a milky or cloudy appearance?*

This is usually caused by harmless air bubbles. If the water is allowed to sit, the air will dissipate and the water will clear. If it doesn't, contact your local Customer Center.

*What causes an odor in my hot water?*

If you detect an odor in your hot water that is not present in your cold water, you may need to adjust, flush, or repair your water heater. Check with the manufacturer for details. If you detect an odor in both the hot and cold water, inform your local Customer Center.

*What causes color in the water?*

Naturally occurring organics and metals can give your water color. These typically do not pose a health hazard, but you should report colored water to your local Customer Center. If a faucet has not been used for a period of time, rust or residue from pipes may have collected, discoloring your water. Let the water run for a minute, and it should return to normal (while the faucet runs, collect the water in a bucket for use in your garden).

*Should I worry about pharmaceuticals in my water?*

In 2008, news stories warned about the possibility of trace amounts of pharmaceuticals in tap water. It is important to remember that the quantities of pharmaceutical substances found were measured in parts per trillion — amounts so small that typical water quality laboratories couldn't even detect them. Although these trace amounts of pharmaceuticals do not appear to pose any significant health risk, Cal Water reminds you that you can help protect

your water supply by responsibly disposing of drugs that are expired or no longer needed. Do not flush them down the toilet or put them in the sink.

*Should I buy a home filtration unit?*

Home water-treatment units are often used to improve the aesthetic qualities of the water, but according to the United States Environmental Protection Agency, they are rarely necessary for health reasons. If you choose to install a home treatment unit, be sure to follow the manufacturer's maintenance instructions, because improperly maintained units can cause water quality problems. For example, bacteria can grow in carbon filters that are not replaced as recommended.

*Is bottled water safer than tap water?*

Both tap and bottled water must meet strict water quality standards, but tap water is subject to more frequent testing. Although bottled water is generally not better quality than what comes out of your tap, a Cal Water customer can get hundreds of gallons of tap water for the average price of a 20-ounce container of bottled water.

*If you have any questions, please contact David Karraker, District Manager, at (323) 722-8601.*

## Potential Sources of Contamination

All 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. More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency (USEPA) Safe Drinking Water Hotline at (800) 426-4791.

The sources of drinking water (both tap and bottled) 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 human activity. 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 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

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

In order to ensure that tap water is safe to drink, the USEPA 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, which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, those with HIV/AIDS or other immune system disorders, some elderly people, and infants, can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control and Prevention (CDC) 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.

## Definitions

*Public Health Goal (PHG)*: 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.

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

*Notification Level (NL)*: A health-based advisory level for an unregulated contaminant in drinking water. It is used by the California Department of Public Health to provide guidance to drinking water systems.

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

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

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

## Notes

<sup>1</sup>Cal Water does not add fluoride to its groundwater supply. However, low levels of fluoride occur naturally. In November 2007, Metropolitan Water District of Southern California (MWD) began fluoridating its treated surface water, which Cal Water purchases. The range of fluoride concentrations indicated under "Purchased Surface Water" is the results of samples collected from the effluent of MWD treatment plants after fluoride was added. Since the system receives a blend of groundwater with naturally occurring fluoride and fluoridated surface water, fluoride levels are checked throughout the distribution system every month. The range and average fluoride concentrations indicated under "Distribution System-Wide" are the results of these samples. The optimal fluoride level for the City of Commerce system is 0.8 ppm, with a control range of 0.7–1.3 ppm.

<sup>2</sup>For surface water systems, the treatment technique dictates that the turbidity level of filtered water shall be less than or equal to 0.3 NTU in 95% of measurements taken each month and shall not exceed 1 NTU at any time. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

<sup>3</sup>Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

<sup>4</sup>Total organic carbon (TOC) has no health effects; however, TOC provides a medium for the formation of disinfection byproducts. These byproducts include THMs and HAAs. Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer. Concerns regarding disinfection byproducts are based upon exposure over many years.

<sup>5</sup>Manganese is present at concentrations that exceed the SMCL of 50 ppb. Only one source exceeded this standard, and a filtration system was constructed to treat this well. As of February 2009, your water meets the SMCL for manganese. SMCLs were established to protect you against unpleasant aesthetic effects, such as color, taste, odor, and the staining of plumbing fixtures and clothing. Exceeding this SMCL does not pose a health risk.

<sup>6</sup>Some groundwater wells contain 1,4-dioxane at concentrations equal to the Notification Level (NL) established by the California Department of Public Health (DPH). An NL is defined as a health-based advisory level for an unregulated contaminant in drinking water, used to provide guidance to drinking water systems. DPH recommends taking a well out of service if the concentrations in the well exceed 100 times the NL. The concentrations in the City of Commerce are significant, but do not

PRIMARY DRINKING WATER STANDARDS						GROUNDWATER		PURCHASED SURFACE WATER		DISTRIBUTION SYSTEM-WIDE		Source of Substance
Radiological	Year Tested	Unit	MCL	PHG (MCLG)	Exceeded Standard?	Range	Average	Range	Average	Range	Average	Source of Substance
Gross alpha particle activity	2005–2008	pCi/L	15	(0)	No	ND–3.2	0.64	ND–9.3	4.7	n/a	n/a	Erosion of natural deposits
Radium 228	2005–2008	pCi/L	5	0.019 (0)	No	ND–1.3	0.2	ND	ND	n/a	n/a	Erosion of natural deposits
Uranium	2005–2008	pCi/L	20	0.43	No	ND	ND	1.6–3.7	2.7	n/a	n/a	Erosion of natural deposits
Inorganic Chemicals	Year Tested	Unit	MCL (SMCL)	PHG	Exceeded Standard?	Range	Average	Range	Average	Range	Average	Source of Substance
Aluminum	2006–2008	ppm	1 (0.2)	0.6	No	ND	ND	0.05–0.28	0.14	n/a	n/a	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic	2006–2008	ppb	10	0.004	No	ND–4.2	2.5	ND–2.9	2.4	n/a	n/a	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium	2006–2008	ppm	1	2	No	ND–0.1	0.04	ND–0.1	0.08	n/a	n/a	Discharges of oil-drilling waste and from metal refineries; erosion of natural deposits
Fluoride (naturally occurring)	2006–2008	ppm	2	1	No	0.4	0.4	ND	ND	0.25–0.94	0.38	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Fluoride (treatment) <sup>1</sup>	2008	ppm	2	1	No	n/a	n/a	0.2–1.0	0.7			Water additive for dental health
Nitrate (as nitrate)	2008	ppm	45	45	No	ND–17	8.5	ND	ND	n/a	n/a	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate (as nitrogen)	2008	ppm	10	10	No	ND	ND	ND–0.9	0.6	n/a	n/a	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
	Year Tested	Unit	MCL	PHG (MCLG)	Exceeded Standard?	Highest Level	Lowest Monthly Percent	Highest Level	Lowest Monthly Percent	Highest Level	Lowest Monthly Percent	Source of Substance
Turbidity (surface water requiring filtration) <sup>2</sup>	2008	NTU	TT	n/a	No	n/a	n/a	0.06	100%	n/a	n/a	Soil runoff
Organic Chemicals	Year Tested	Unit	MCL	PHG	Exceeded Standard?	Range	Average	Range	Average	Range	Average	Source of Substance
1,1-Dichloroethylene	2008	ppb	6	10	No	ND–0.9	0.2	ND	ND	n/a	n/a	Discharge from industrial chemical factories; major biodegradation product of TCE and PCE groundwater contamination
Tetrachloroethylene (PCE)	2008	ppb	5	0.06	No	ND–0.6	0.1	ND	ND	n/a	n/a	Discharge from petroleum and chemical factories; underground gas tank leaks
Trichloroethylene (TCE)	2008	ppb	5	0.8	No	ND–2.6	0.3	ND	ND	n/a	n/a	Discharge from industrial chemical factories; degreasing solvent; propellant and refrigerant
Disinfection Byproducts	Year Tested	Unit	MCL	PHG (MCLG)	Exceeded Standard?	Range	Highest Annual Average	Range	Highest Annual Average	Range	Highest Annual Average	Source of Substance
Bromate <sup>3</sup>	2008	ppb	10	(0)	No	n/a	n/a	4.4–10	7.8	n/a	n/a	Byproduct of drinking water disinfection
Total haloacetic acids	2008	ppb	60	n/a	No	n/a	n/a	n/a	n/a	ND–8.9	6.9	Byproduct of drinking water disinfection
Total trihalomethanes	2008	ppb	80	n/a	No	n/a	n/a	n/a	n/a	1.9–26.5	22.5	Drinking water disinfectant added for treatment
Disinfectant and DBP Precursor	Year Tested	Unit	MRDL	MRDLG	Exceeded Standard?	Range	Average	Range	Average	Range	Average	Source of Substance
Chlorine	2008	ppm	4	4	No	n/a	n/a	n/a	n/a	0.07–1.6	0.6	Drinking water disinfectant added for treatment
Chloramine	2008	ppm	4	4	No	n/a	n/a	n/a	n/a	0.1–2.2	1.0	Drinking water disinfectant added for treatment
Total organic carbon <sup>4</sup>	2008	ppm	TT	n/a	No	n/a	n/a	1.5–2.5	2.2	n/a	n/a	Naturally present in the environment
Microbiological	Year Tested	Unit	MCL	(MCLG)	Exceeded Standard?	Highest Monthly	Highest Monthly	Highest Monthly	Highest Monthly	Highest Monthly	Highest Monthly	Source of Substance
Total Coliform (systems with <40 samples/month)	2008	positive samples	1	(0)	No	n/a	n/a	n/a	n/a	1	1	Naturally present in the environment
OTHER REGULATED SUBSTANCES												
Metals	Year Tested	Unit	AL	PHG	Exceeded Standard?	90th Percentile	Samples > AL	90th Percentile	Samples > AL	90th Percentile	Samples > AL	Source of Substance
Copper	2008	ppm	1.3	0.3	No	n/a	n/a	n/a	n/a	0.19	0 of 12	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
SECONDARY DRINKING WATER STANDARDS AND UNREGULATED COMPOUNDS												
Inorganic Chemicals	Year Tested	Unit	SMCL	PHG (MCLG)	Exceeded Standard?	Range	Average	Range	Average	Range	Average	Source of Substance
Boron	2006–2008	ppm	NL=1	n/a	No	ND	ND	130–200	157	n/a	n/a	Erosion of natural deposits
Calcium	2006–2008	ppm	n/a	n/a	No	67–75	70	23–74	50	n/a	n/a	Erosion of natural deposits
Chloride	2006–2008	ppm	500	n/a	No	60–67	65	72–104	89	n/a	n/a	Erosion of natural deposits; seawater influence
Chromium 6+	2006–2008	ppb	n/a	n/a	No	ND	ND	0.10–0.51	0.17	n/a	n/a	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Color	2006–2008	Units	15	n/a	No	ND	ND	1–3	2	n/a	n/a	Naturally occurring organic matter
Hardness	2006–2008	ppm	n/a	n/a	No	210–240	223	108–308	210	n/a	n/a	Municipal and industrial waste discharges
Iron	2006–2008	ppb	300	n/a	No	ND–250	9	ND	ND	n/a	n/a	Erosion of natural deposits
Magnesium	2006–2008	ppm	n/a	n/a	No	11–13	12	11–29	21	n/a	n/a	Erosion of natural deposits
Manganese <sup>5</sup>	2006–2008	ppb	50	n/a	Yes	ND–204	14	ND	ND	n/a	n/a	Leaching from natural deposits
Odor	2006–2008	Units	3	n/a	No	1	1	2–3	2	n/a	n/a	Naturally occurring organic matter
pH	2006–2008	Units	n/a	n/a	No	6.3–8.7	7.5	n/a	n/a	n/a	n/a	Inherent characteristic of water
Sodium	2006–2008	ppm	n/a	n/a	No	60–61	60	56–109	83	n/a	n/a	Erosion of natural deposits
Specific conductance	2006–2008	µS/cm	1600	n/a	No	690–770	723	516–1090	813	n/a	n/a	Erosion of natural deposits; seawater influence
Sulfate	2006–2008	ppm	500	n/a	No	100–110	103	47–275	160	n/a	n/a	Runoff/leaching from natural deposits; industrial wastes
Total dissolved solids	2006–2008	ppm	1000	n/a	No	440–470	450	283–678	480	n/a	n/a	Runoff/leaching from natural deposits
Turbidity (groundwater)	2006–2008	NTU	5	n/a	No	ND–0.3	0.1	n/a	n/a	n/a	n/a	Soil runoff
Vanadium	2006–2008	ppb	NL=50	n/a	No	ND	ND	3.1–5.1	4.1	n/a	n/a	Erosion of natural deposits; manufacturing of alloys and steel
Disinfection Byproducts	Year Tested	Unit	MCL (SMCL)	PHG (MCLG)	Exceeded Standard?	Range	Average	Range	Average	Range	Average	Source of Substance
Chlorate	2008	ppb	n/a	n/a	No	ND	ND	16–52	ND	n/a	n/a	Byproduct of drinking water chlorination; industrial processes
n-Nitrosodimethylamine	2008	ppb	NL=10	3	No	ND–5	0.5	ND–7.4	ND	n/a	n/a	Byproduct of drinking water chlorination; industrial processes
Organic Chemicals	Year Tested	Unit	SMCL	PHG (MCLG)	Exceeded Standard?	Range	Average	Range	Average	Range	Average	Source of Substance
1,4-Dioxane <sup>6</sup>	2008	ppb	NL=3	n/a	No	ND–3	0.8	ND	ND	n/a	n/a	Industrial solvent or solvent stabilizer for chlorinated solvents or volatile organic compounds