



2010
Water
Quality
Report

City of
Westminster
Water Division

Your 2010 Water Quality Report

Water Quality Meets State and Federal Standards

As you read this report, you will find laboratory test results show the City of Westminster's water system once again meets all the water quality standards put forth by the United States Environmental Protection Agency (USEPA) and the State of California Department of Public Health (CDPH). Your drinking water has been tested more than 64,000 times last year for regulated and non-regulated contaminants.

Drinking Water Quality

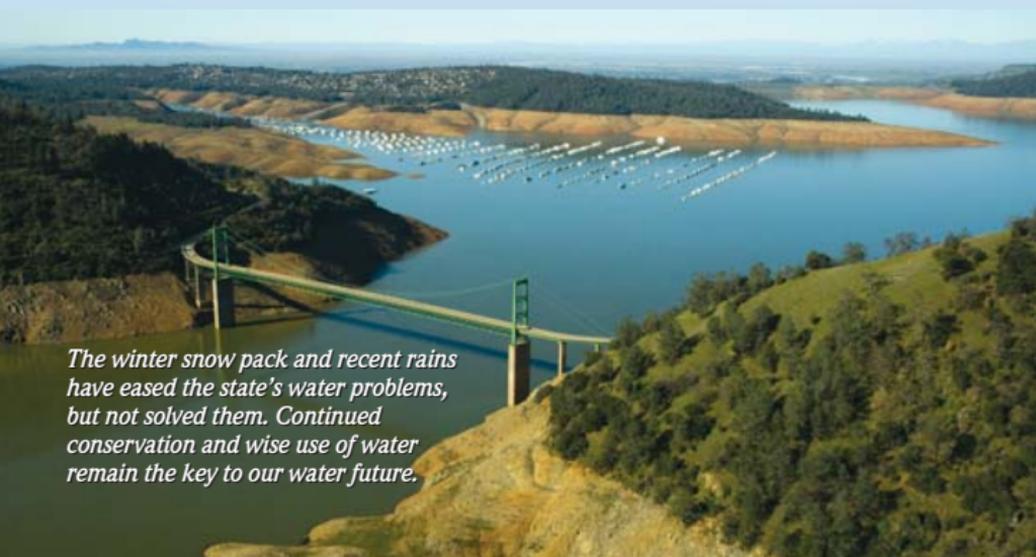
Since 1990, California water utilities have been providing an annual Water Quality Report to their customers. This year's report covers calendar year 2009 water quality testing, and has been prepared in compliance with the 1996 reauthorization of the Safe



Drinking Water Act. The reauthorization charged the USEPA with updating and strengthening the tap water regulatory program.

USEPA and the CDPH are the agencies responsible for establishing drinking water quality standards. To ensure that your tap water is safe to drink, USEPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

Your Westminster Water Division vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies. In some cases, the City goes beyond what is required by testing for unregulated contaminants that may have known health risks. For example, the Orange County Water District, which manages our groundwater basin, monitors our groundwater for NDMA and 1,4-dioxane, and other unregulated chemicals. Monitoring unregulated chemicals helps USEPA determine where certain potentially harmful contaminants occur and whether it needs to establish regulations for those constituents.



The winter snow pack and recent rains have eased the state's water problems, but not solved them. Continued conservation and wise use of water remain the key to our water future.

What You Need to Know About Your Water, and How it May Affect You

Sources of Supply

The City of Westminster's water supply is a blend of ground-water managed by the Orange County Water District (OCWD) and water imported from Northern California and the Colorado River by the Municipal Water District of Orange County (MWDOC) via the Metropolitan Water District of Southern California. Groundwater comes from a natural underground aquifer that is replenished with water from the Santa Ana River, local rainfall and imported water. The groundwater basin is 350 square miles and lies beneath north and central Orange County from Irvine to the Los Angeles border and from Yorba Linda to the Pacific Ocean.

Westminster has 11 groundwater wells located throughout the City and three import water connections. Last year, on average 83% of our drinking water was produced from our wells and 17% was imported.

Orange County's Water Future

For years, Orange County has enjoyed an abundant, seemingly endless supply of high-quality water. However, as water demand continues to increase statewide, we must be even more conscientious about our water supply and maximize the efficient use of this precious natural resource.

OCWD and MWDOC work cooperatively to evaluate new and innovative water management and supply development programs, including water reuse and recycling, wetlands expansion, recharge facility construction, ocean and brackish water desalination, surface storage and water use efficiency programs. These efforts are helping to enhance long-term countywide water reliability and water quality.

A healthy water future for Orange County rests on finding and developing new water supplies, as well as protecting and improving the quality of the water that we have today. Your local and regional water agencies are committed to making the necessary investments today in new water management projects to ensure an abundant and high-quality water supply for our future.

The winter snow pack and spring rains have only temporarily eased the intensity of the state's drought. Reduced water allocations combined with judicially imposed environmental pumping restrictions from the State Water Project in Northern California continue to affect Southern California's water supply. Water conservation, both indoors and outdoors, has never been more important.



Basic Information About Drinking Water Contaminants

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 land or through the layers of the ground it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal and 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 storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production or mining activities.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm water runoff, agricultural application and septic systems.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.



In order to ensure that tap water is safe to drink, USEPA and

Questions about your water? Contact us for answers.

For information about this report, or your water quality in general, please contact Wil Davee at (714) 548-3694. To find out about opportunities to participate in public meetings, contact the Westminster City Clerk's office at (714) 898-3311. The City Council meets every second and fourth Wednesday in the Council Chambers at 8200 Westminster Boulevard. We are also reachable by mail at the City of Westminster Water Division, 14381 Olive Street, Westminster, California 92683.

For more information about the health effects of the listed contaminants in the following tables, call the U.S. Environmental Protection Agency hotline at (800) 426-4791.

For after hours water quality emergencies, call the Westminster Police Department at (714) 898-3315.

the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH 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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer who are undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

USEPA/Centers for Disease Control (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 (1-800-426-4791).

Everyone can do something to save water – use drought-tolerant plants; install synthetic turf; install a “smart” irrigation controller; purchase a water-efficient clothes washer; make sure your dishwasher is full before running it; or simply cut back on the water used for daily living: don't run the water while shaving or brushing teeth; take shorter showers; use a broom instead of a hose to clean driveways and sidewalks – the list is endless, and so much of it is very easy to do. Visit the websites listed on the next page for information on California's water supply situation and what you can do to preserve this precious resource.



The Quality of Your Water is Our Primary Concern

About Lead in Tap 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. The City of Westminster Water Division is 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

What are Water Quality Standards?

Drinking water standards established by USEPA and CDPH set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

- **Maximum Contaminant Level (MCL):** 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.
- **Maximum Residual Disinfectant Level (MRDL):** 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.
- **Secondary MCLs** are set to protect the odor, taste, and appearance of drinking water.
- **Primary Drinking Water Standard:** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

How are Contaminants Measured?

Water is sampled and tested throughout the year.

Contaminants are measured in:

- parts per million (ppm) or milligrams per liter (mg/l)
- parts per billion (ppb) or micrograms per liter ($\mu\text{g/l}$)
- parts per trillion (ppt) or nanograms per liter (ng/l)

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and CDPH have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart in this report includes three types of water quality goals:

- **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 USEPA.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** 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.
- **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.

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.

Radon Advisory

Radon is a radioactive gas that you can't see, taste, or smell and it is found throughout the U.S. It can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes and can also get into indoor air when released from tap water from showering, washing dishes, and other household activities.

Compared to radon entering the home through soil, radon entering the home through tap water is a small source of radon in indoor air, contributing to no more than

0.1 picocurie per liter (pCi/L). For the most recent samples, the average level detected in your water was 0.041 pCi/L, significantly lower than EPA's trigger level to take action to fix homes at 4 pCi/L.

Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 pCi/L or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your State radon program (1-800-745-7236), the EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safe Council Radon Hotline (1-800-SOS-RADON).

2009 City of Westminster Drinking Water Quality Local Groundwater and Metropolitan Water District Treated Surface Water

Chemical	MCL	PHG (MCLG)	Avg. Groundwater Amount	Avg. Imported MWD Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Radiologicals – Tested in 2009							
Alpha Radiation (pCi/L)	15	(0)	6.1	5.6	ND – 16	No	Erosion of Natural Deposits
Beta Radiation (pCi/L)	50	(0)	NR	4.3	ND – 6.4	No	Decay of Man-made or Natural Deposits
Combined Radium (pCi/L)	5	(0)	<1	ND	ND – 1.4	No	Erosion of Natural Deposits
Uranium (pCi/L)	20	0.43	6.4	3.3	1.3 – 15	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2009							
Aluminum (ppm)	1	0.6	ND	0.17	ND – 0.23	No	Treatment Process Residue, Natural Deposits
Arsenic (ppb)	10	0.004	<2	2.3	ND – 5.0	No	Erosion of natural deposits
Barium (ppm)	1	2	<0.1	0.13	ND – 0.14	No	Erosion of natural deposits
Fluoride (ppm)	Control Range 0.7 – 1.3 ppm Optimal Level 0.8 ppm		NR	0.8	0.7 – 0.9	No	Erosion of natural deposits
Fluoride (ppm) naturally-occurring	2	1	0.46	NR	0.37 – 0.51	No	Water Additive for Dental Health
Nitrate (ppm as NO ₃)	45	45	5.4	7.5	ND – 11	No	Agriculture runoff and sewage
Nitrate+Nitrite (ppm as N)	10	10	1.2	1.7	ND – 2.5	No	Agriculture runoff and sewage
Secondary Standards* – Tested in 2009							
Aluminum (ppb)	200*	600	ND	170	100 – 230	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	32	97	13 – 99	No	Runoff or leaching from natural deposits
Color (color units)	15*	n/a	ND	2	ND – 2	No	Runoff or Leaching from Natural Deposits
Manganese (ppb)	50*	n/a	2.6	ND	ND – 29	No	Runoff or leaching from natural deposits
Odor (threshold odor number)	3*	n/a	ND	2	ND – 2	No	Naturally-occurring Organic Materials
Specific Conductance ($\mu\text{mho/cm}$)	1,600*	n/a	572	1,000	377 – 1,100	No	Runoff or leaching from natural deposits
Sulfate (ppm)	500*	n/a	71	240	37 – 250	No	Runoff or leaching from natural deposits
Surfactants (ppm)	0.5*	n/a	<0.02	ND	ND – 0.02	No	Wastewater Discharge
Total Dissolved Solids (ppm)	1,000*	n/a	362	610	226 – 716	No	Runoff or leaching from natural deposits
Turbidity (ntu)	5*	n/a	0.16	0.04	ND – 0.30	No	Runoff or leaching from natural deposits
Unregulated Contaminants Requiring Monitoring – Tested in 2009							
Alkalinity, total (ppm as CaCO ₃)	Not Regulated	n/a	175	120	98 – 226	n/a	Runoff or leaching from natural deposits
Boron (ppb)	Not Regulated	n/a	ND	140	120 – 140	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	71	68	40 – 130	n/a	Runoff or leaching from natural deposits
Hardness, total (ppm as CaCO ₃)	Not Regulated	n/a	226	280	129 – 411	n/a	Runoff or leaching of natural deposits
Hexavalent Chromium (ppb)	Not Regulated	n/a	<1	ND	ND – 1.5	n/a	Runoff or leaching of natural deposits
Magnesium (ppm)	Not Regulated	n/a	12	27	6.7 – 29	n/a	Runoff or leaching from natural deposits
pH (pH units)	Not Regulated	n/a	8.2	7.9	7.8 – 8.3	n/a	Hydrogen ion concentration
Potassium (ppm)	Not Regulated	n/a	2.9	4.8	1.7 – 5.1	n/a	Runoff or leaching from natural deposits
Sodium (ppm)	Not Regulated	n/a	35	98	31 – 100	n/a	Runoff or leaching from natural deposits
Total Organic Carbon (ppm)	Not Regulated	TT	0.1	2.3	ND – 2.6	n/a	Runoff or leaching from natural deposits
Vanadium (ppb)	Not Regulated	n/a	2.6	3.1	ND – 4.1	n/a	Various natural and man-made sources

ppb = parts-per-billion; ppm = parts-per-million; ppt = parts-per-trillion; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; $\mu\text{mho/cm}$ = micromhos per centimeter; NR = not required to be analyzed; ND = not detected; < = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; n/a = not applicable; TT = treatment technique. *Contaminant is regulated by a secondary standard.

Turbidity – combined filter effluent Metropolitan Water District Diemer Filtration Plant	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Contaminant
1) Highest single turbidity measurement	0.3 NTU	0.06	No	Soil run-off
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil run-off

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT).

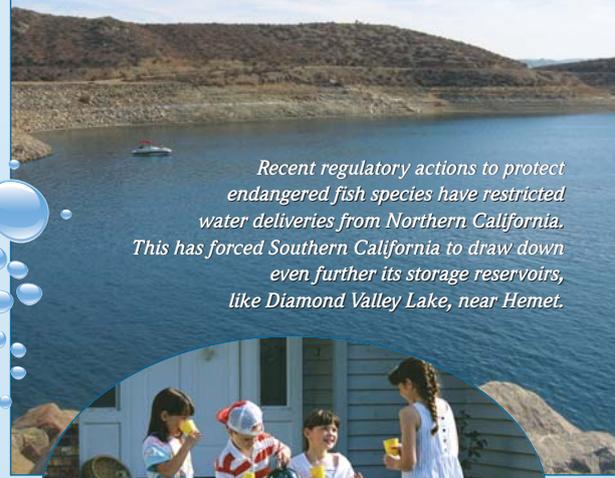
A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.



Flushing Fire Hydrants

Throughout the year, you may see City Water employees releasing water from fire hydrants in the community.

This process, called “flushing,” allows us to test hydrants to ensure they work properly. The increase in velocity of water in the pipeline when the hydrant is opened also removes sediment from pipes, which enhances the performance of the distribution system and helps to maintain water clarity.



Recent regulatory actions to protect endangered fish species have restricted water deliveries from Northern California. This has forced Southern California to draw down even further its storage reservoirs, like Diamond Valley Lake, near Hemet.



Water conservation doesn't have to inconvenience our lives to be effective. Simple changes in how we do our daily tasks can have a tremendous impact on our water usage. A little effort can save a lot of water.

Listed in the tables here are the constituents that were detected in our water system. If a chemical is not listed in the tables, it was not found in our water system above the Detection Limit.

Want Additional Information? There's a wealth of information on the internet about Drinking Water Quality and water issues in general. Some good sites — both local and national — to begin your own research are:

City of Westminster: www.westminster-ca.gov • Municipal Water District of Orange County: www.mwdoc.com

Orange County Water District: www.ocwd.com • Water Education Foundation: www.watereducation.org

Metropolitan Water District of Southern California: www.mwdh2o.com

California Department of Public Health, Division of Drinking Water and Environmental Management
www.cdph.ca.gov/certlic/drinkingwater

U.S. Environmental Protection Agency: www.epa.gov/safewater/

California Department of Water Resources: www.water.ca.gov

Water Conservation Tips: www.bewaterwise.com • www.wateruseitwisely.com

Source Water Assessments

Imported (Metropolitan) Water Assessment

In December 2002, Metropolitan Water District of Southern California completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850.

Groundwater Assessment

An assessment of the drinking water sources for the City of Westminster was completed in December of 2002. Westminster groundwater supply wells are considered most vulnerable to the following potential contaminant sources: gas stations, high density housing, dry cleaners, parks, and road right of ways. You may request a summary or copy of this assessment by contacting Scott Miller, Water Superintendent, Westminster Water Division at (714) 548-3693.

2009 City of Westminster Distribution System Water Quality

Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Color (color units)	15*	0.1	ND – 11	No	Erosion of Natural Deposits
Turbidity (ntu)	5*	0.01	ND – 0.2	No	Erosion of Natural Deposits
Disinfection Byproducts**					
Total Trihalomethanes (ppb)	80	7.6	ND – 29	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	4.3	ND – 13	No	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	0.9	0.3 – 2.2	No	Disinfectant Added for Treatment

Eight locations in the distribution system are tested quarterly for disinfection byproducts; fifteen locations are tested monthly for color, odor and turbidity. Odor was not detected in any sample. **MRDL** = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal; **ntu** = nephelometric turbidity units; **ND** = not detected;

ppb = parts-per-billion; **ppm** = parts-per-million; **ton** = threshold odor number.

*Contaminant is regulated by a secondary standard to maintain aesthetic qualities. **Disinfection Byproducts average values are based on a running annual average.

Bacterial Quality	MCL	MCLG	Highest Monthly Positive Samples	MCL Violation?	Typical Source of Contaminant
Total Coliform Bacteria	5%	0	1.7%	No	Naturally Present in the Environment

No more than 5% of the monthly samples may be positive for total coliform bacteria.

The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform / *E. coli*, constitutes an acute MCL violation.

Lead and Copper Action Levels at Residential Taps

Action Level (AL)	Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Contaminant
Lead (ppb)	0.2	1.8	0 / 43	No	Corrosion of Household Plumbing
Copper (ppm)	0.3	0.24	0 / 43	No	Corrosion of Household Plumbing

In 1992, the USEPA found that Westminster's water system did not exceed the action levels for lead and copper and had optimized corrosion control. In 2009, the City of Westminster participated in reduced monitoring. Forty-three (43) residences were sampled and tested for lead and copper at-the-tap. Neither lead nor copper was detected above the respective regulatory action level. A regulatory action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

This report contains important information about your drinking water
Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Para más información ó traducción, favor de contactar a Mr. Willie Cobar. Telefono: 714-548-3685.

Spanish

这份报告中有些重要的信息，讲到关于您所在社区的水的品质。请您找人翻译一下，或者请能看得懂这份报告的朋友给您解释一下。

Chinese

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong cộng đồng quý vị. Hãy nhờ người thông dịch, hoặc hỏi một người bạn biết rõ về vấn đề này.

Vietnamese

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Tagalog

この資料には、あなたの飲料水についての大切な情報が書かれています。内容をよく理解するために、日本語に翻訳して読むか説明を受けてください。

Japanese



City of Westminster Water Division

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