

The 2008 Water Quality Report

Drinking Water Quality

Since 1990, California water utilities have been providing an annual Water Quality Report to their customers. This year's report, sometimes called the "Consumer Confidence Report," covers calendar year 2007 water quality testing, and has been prepared in compliance with regulations called for in the 1996 reauthorization of the Safe Drinking Water Act (SDWA). The reauthorization charged the United States Environmental Protection Agency (USEPA) with updating and strengthening the tap water regulatory program.

USEPA and the California Department of Public Health (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. The federal Food and Drug Administration (FDA) sets regulations for bottled water.

The City of Huntington Beach Utilities 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 accordance with the SDWA, the City monitors over 100 compounds in your water supply. This report includes only the compounds actually detected in the water.

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. The City conducts extra sampling of some of these unregulated contaminants as well. Unregulated contaminant monitoring helps USEPA determine where certain contaminants occur and whether it needs to establish regulations for those contaminants.



City of Huntington Beach
Public Works Utilities Division
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Huntington Beach, California 92648

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

يحتوي هذا التقرير على معلومات هامة عن نوعية مياه الشرب في منطقتك. يرجى ترجمته، أو البحث للتقرير مع صديقك إن يفهم هذه المعلومات جيدا.

Arabic

Der Bericht enthält wichtige Informationen über die Wasserqualität in Ihrer Umgebung. Der Bericht sollte entweder offiziell übersetzt werden, oder sprechen Sie mit Freunden oder Bekannten, die gute Englischkenntnisse besitzen

German

इस रिपोर्ट में पीने के पानी के विषय पर बहुत जरूरी जानकारी दी गई है। कृपया इसका अनुवाद करें। या किसी जानकार से इस बारे में पूछें।

Hindi

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

Este informe contiene información muy importante sobre su agua potable. Para más información o traducción, favor de contactar a Mr. Derek Smith. Teléfono: (714) 536-5921.

Spanish

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

Vietnamese



2008
Drinking Water
Quality Report

City of
Huntington Beach
Utilities Division

If you have any questions about your water, please contact us for answers...

For information or concerns about this report, or your water quality in general, please contact Derek Smith or Franz Henket at (714) 536-5921, or send e-mail to dsmith@surfcity-hb.org. You may also address your concerns at the regularly scheduled City Council Meetings held at City Hall at 2000 Main Street in Huntington Beach on the first and third Mondays of each month at 6:00 pm in the City Hall Council Chambers. Please feel free to participate in these meetings. The City firmly believes in the public's right to know as much as possible about the quality of their drinking water and the health of their watershed. Your input and concerns are very important to us.

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.

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

Sources of Supply

Orange County's water supplies are a blend of groundwater provided 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 (MWD) 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. More than 20 cities and retail water districts draw from the basin to provide water to homes and businesses.

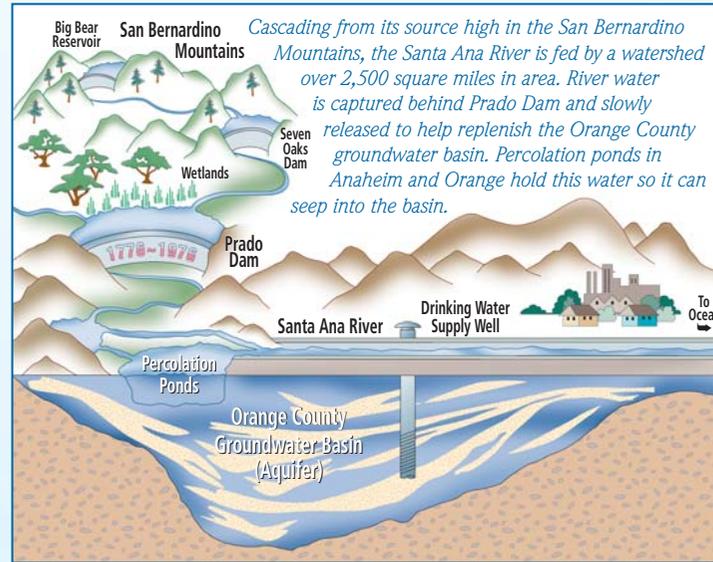
Orange County's Water Future

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 MWD) 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.

Engineering marvels, the State Water Project and Colorado River Aqueduct, make our way of life possible by delivering water to millions of people in Orange County.



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.
- ▶ Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- ▶ 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.

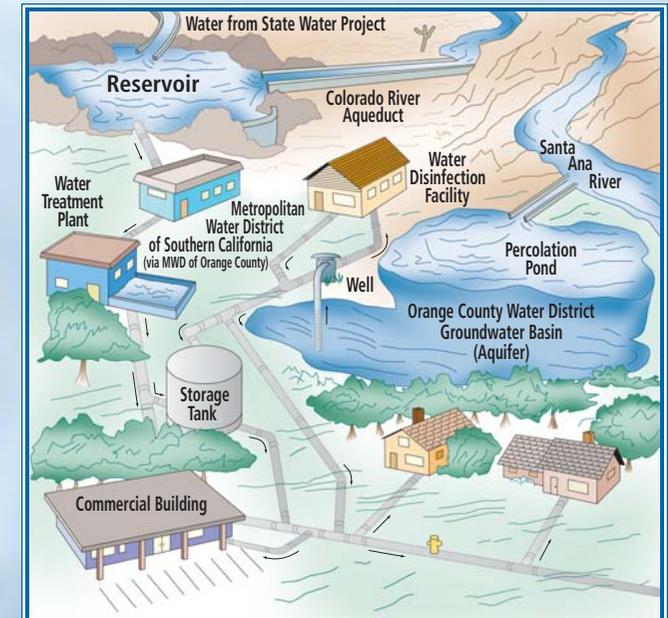
In order to ensure that tap water is safe to drink, USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations

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.

Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. The Metropolitan Water District of Southern California tested their source water and treated surface water for *Cryptosporidium* in 2007 but did not detect it. If it ever is detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from USEPA's Safe Drinking Water hotline at (800) 426-4791 between 9 a.m. and 5 p.m. Eastern Time (6 a.m. to 2 p.m. in California).



Imported water — from the Colorado River and northern California — travels hundreds of miles to meet the needs of Orange County. Water is also pumped from the groundwater basin that spans 350 square miles under north and central Orange County.

The Continuing Quality of Your Water is Our Primary Concern

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.

Disinfection and Disinfection Byproducts

Disinfection of drinking water was one of the major public health advances in the 20th century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of drinking water treatment today.

Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source of supply (groundwater well or surface water treatment plant). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This “residual” chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home.

However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the USEPA to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average. Effective in January 2002, the Stage 1 Disinfectants /

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 Huntington Beach was completed in December, 2002. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: dry cleaners, electrical/electronic manufacturing, gas stations, known contaminant plumes, metal plating, finishing, or fabricating, military installations, and plastics/synthetics producers. You may request a summary of the assessment be sent to you by contacting Howard Johnson at (714) 536-5921.

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:

[Municipal Water District of Orange County
www.mwdoc.com](http://www.mwdoc.com)

[Orange County Water District
www.ocwd.com](http://www.ocwd.com)

[Metropolitan Water District of Southern California
www.mwdh2o.com](http://www.mwdh2o.com)

[California Department of Public Health,
Division of Drinking Water and Environmental Management
www.cdph.ca.gov/certlic/drinkingwater](http://www.cdph.ca.gov/certlic/drinkingwater)

[U.S. Environmental Protection Agency
www.epa.gov/safewater/](http://www.epa.gov/safewater/)

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 level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- **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 (µg/l)
- parts per trillion (ppt) or nanograms per liter (ng/l)

If this is difficult to imagine, think about these comparisons:

- | <i>Parts per million
(ppm or mg/L):</i> | <i>Parts per billion
(ppb or µg/L):</i> | <i>Parts per trillion
(ppt or ng/L)</i> |
|---|---|---|
| • 3 drops in 42 gallons | • 3 drops in 14,000 gallons | • 10 drops in a Rose Bowl-sized pool |
| • 1 second in 12 days | • 1 second in 32 years | • 1 second in 32,000 years |
| • 1 inch in 16 miles | • 1 inch in 16,000 miles | • 1 inch in 16 million miles |

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 disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by USEPA.
- **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.

Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water. Your drinking water complies with the Stage 1 Disinfectants / Disinfection Byproducts Rule. In 2003, the USEPA proposed a Stage 2 regulation that will further control allowable levels of DBPs in drinking water without compromising disinfection itself. This regulation was finalized by USEPA in January 2006.

Fluoridation

Fluoride occurs naturally in Huntington Beach's water supplies. In addition to the natural levels, the City's water system adds a small concentration of fluoride to the water to promote dental benefits per a majority vote of the community during the early 1970s. Fluoridating the water especially helps to prevent tooth decay in children. Because of the dramatic health benefits of fluoridating drinking water, a 1997 Assembly Bill of the State of California has mandated all large system water suppliers to begin fluoridating their systems. The City's water is fluoridated to the California Department of Public Health optimal levels within a range of 0.7 ppm to 1.3 ppm.

There are many places to go for additional information about the fluoridation of drinking water.

[U.S. Centers for Disease Control and Prevention
1-800-232-4636](http://www.cdc.gov/Oralhealth/publications/factsheets/)

www.cdc.gov/Oralhealth/publications/factsheets/

[American Dental Association](http://www.ada.org/public/topics/fluoride/index.asp)

www.ada.org/public/topics/fluoride/index.asp

[American Water Works Association](http://www.awwa.org)

www.awwa.org

2007 City of Huntington Beach Distribution System Water Quality

Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	23	2.0 – 52	No	Byproducts of chlorine disinfection
Haloacetic Acids (ppb)	60	15	ND – 32	No	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4 / 4)	1	0.10 – 2.8	No	Disinfectant added for treatment

Aesthetic Quality

Color (color units)	15*	ND	ND	No	Erosion of natural deposits
Odor (threshold odor number)	3*	1	1 – 3	No	Erosion of natural deposits
Turbidity (NTU)	5*	0.10	0.01 – 0.36	No	Erosion of natural deposits

16 locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; six locations are tested weekly for color, odor, and turbidity. MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal; NTU = nephelometric turbidity unit; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

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)	15	2	8.0	3 out of 53	No	Corrosion of household plumbing
Copper (ppm)	1.3	0.17	0.45	0 out of 53	No	Corrosion of household plumbing

Every three years, selected residences are tested for lead and copper at-the-tap. The most recent set of 53 samples was collected in 2006.

Lead was detected in nine homes, three of which exceeded the lead action level (AL). Copper was detected in all 53 samples, none of which exceeded the copper AL. A regulatory action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

2007 City of Huntington Beach Drinking Water Quality Local Groundwater and Metropolitan Water District Treated Surface Water

Chemical	MCL	PHG (MCLG)	Average Local Groundwater	Average MWD Surface Water	Range of Detections	MCL Violation?	Typical Source of Contaminant
Radiologicals – Tested in 2006/2007							
Alpha Radiation (pCi/L)	15	(0)	4.5	<3	ND – 9.7	No	Erosion of natural deposits
Beta Radiation (pCi/L)	50	(0)	NR	<4	ND – 6.4	No	Decay of man-made or natural deposits
Uranium (pCi/L)	20	0.43	4.5	ND	ND – 9.4	No	Erosion of natural deposits
Inorganic Chemicals – Tested in 2007							
Aluminum (ppm)	1 / 0.2*	0.6	<0.05	0.08	ND – 0.1	No	Erosion of natural deposits
Arsenic (ppb)	10	0.004	<2	<2	ND – 3.7	No	Erosion of natural deposits
Barium (ppm)	1	2	ND	<0.1	ND – 0.1	No	Erosion of natural deposits
Fluoride (ppm) naturally-occurring	2	1	0.40	0.20	0.10 – 0.51	No	Erosion of natural deposits
Fluoride (ppm) treatment-related	Optimal Range 0.7 – 1.3	0.7 – 1.3		0.6 – 1.0		No	Water additive for dental health
Nickel (ppb)	100	12	<10	ND	ND – 15	No	Erosion of natural deposits
Nitrate as NO ₃ (ppm)	45	45	<2	2.2	ND – 6.9	No	Agriculture runoff and sewage
Nitrate and Nitrite as N (ppm)	10	10	<0.4	0.5	ND – 1.6	No	Agriculture runoff and sewage
Perchlorate (ppb)	6	6	ND	<4	ND – 4.1 (1)	No	Industrial discharge

Secondary Standards* – Tested in 2007

Chloride (ppm)	500*	n/a	53	78	13 – 195	No	Runoff or leaching from natural deposits
Color (color units)	15*	n/a	1.6	2	ND – 12	No	Runoff or leaching from natural deposits
Manganese (ppb)	50*	n/a	<20	ND	ND – 25	No	Erosion of natural deposits
Odor (odor units)	3*	n/a	<1	2	ND – 4	No	Naturally-occurring organic materials
Specific Conductance (µmho/cm)	1,600*	n/a	598	676	364 – 1,070	No	Substances that form ions in water
Sulfate (ppm)	500*	n/a	58	117	24 – 179	No	Runoff or leaching of natural deposits
Total Dissolved Solids (ppm)	1,000*	n/a	351	391	206 – 724	No	Runoff or leaching of natural deposits
Turbidity (NTU)	5*	n/a	0.24	0.05	ND – 0.6	No	Runoff or leaching of natural deposits

Unregulated Chemicals – Tested in 2007

Alkalinity (ppm)	Not Regulated	n/a	162	88	80 – 196	n/a	Runoff or leaching from natural deposits
Boron (ppm)	Not Regulated	n/a	ND	0.16	ND – 0.20	n/a	Runoff or leaching from natural deposits
Calcium (ppm)	Not Regulated	n/a	63	37	20 – 109	n/a	Runoff or leaching from natural deposits
Hardness, total (ppm)	Not Regulated	n/a	211	165	55 – 379	n/a	Runoff or leaching of natural deposits
Hardness, total (grains/gal)	Not Regulated	n/a	12	10	3 – 22	n/a	Runoff or leaching of natural deposits
Magnesium (ppm)	Not Regulated	n/a	10	17	1 – 23	n/a	Runoff or leaching from natural deposits
pH (pH units)	Not Regulated	n/a	8.2	8.2	8.0 – 8.5	n/a	Hydrogen ion concentration
Potassium (ppm)	Not Regulated	n/a	2.6	3.4	1.5 – 4.3	n/a	Runoff or leaching from natural deposits
Sodium (ppm)	Not Regulated	n/a	47	71	32 – 93	n/a	Runoff or leaching from natural deposits
Total Organic Carbon (ppm)	Not Regulated	TT	NR	2.2	1.9 – 2.9	n/a	Various natural and man-made sources
Vanadium (ppb)	Not Regulated	n/a	<3	3.3	ND – 6.6	n/a	Runoff or leaching from natural deposits

(1) Perchlorate detection is from a USEPA Unregulated Contaminant Monitoring Rule test in 2003. Perchlorate was not detected in treated water samples tested in 2007. Perchlorate became a regulated chemical in California drinking water in 2007.

ppb = parts-per-billion; ppm = parts-per-million; ppt = parts-per-trillion; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; µmho/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; LSI = Langelier Saturation Index; *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.

Lead Advisory

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested; you could also flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (800) 426-4791.

Radon Advisory

Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon 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. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Breathing air containing radon can lead to lung cancer. Drinking water containing radon could increase the risk of stomach cancer. Compared to radon entering the home through soil, radon entering the home through your tap water is a small source of radon in indoor air. For the most recent set of samples collected in 2004, the maximum amount of Radon detected in your water was 620 picocuries per liter which is equivalent to 0.06 picocurie per liter of Radon in indoor air of a typical family residence. The USEPA Action Level for radon in indoor air is 4.0 picocuries per liter. If you are concerned about radon in your home, test the air in your home. Fix your home if the level of radon is 4 picocuries per liter of air or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call the State radon program or call USEPA's Radon Hotline (1-800-SOS-RADON).