

2009 Water Quality Report

City of
Newport Beach
Utilities
Department



Your 2009 Water Quality Report

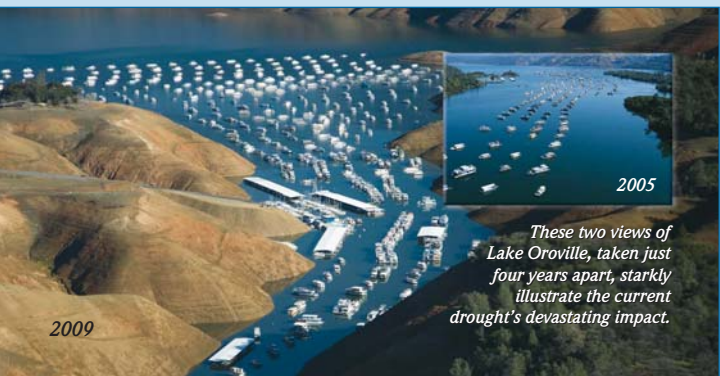
Drinking Water Quality

Since 1990, California water utilities have been providing an annual Water Quality Report to their customers. This year's report covers calendar year 2008 water quality testing, and has been prepared in compliance with regulations called for in the 1996 reauthorization of the Safe Drinking Water Act. The re-authorization 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. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. The federal Food and Drug Administration (FDA) also sets regulations for bottled water.

The City of Newport Beach 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 of Newport Beach 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 unregulated pesticides, herbicides, and solvents.

Unregulated contaminant monitoring helps USEPA determine where certain contaminants occur and whether it needs to establish regulations for those contaminants.



2005

These two views of Lake Oroville, taken just four years apart, starkly illustrate the current drought's devastating impact.

2009

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 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. 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 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.

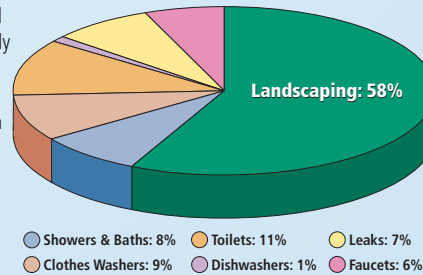
The winter snow pack and spring rains have only temporarily eased the intensity of the state's drought. Reduced water allocations combined with judicially imposed environmental pumping restrictions from the State Water Project in northern California continue to affect southern California's water supply. Water conservation, both indoors and outdoors, has never been more important. Many cities and water districts may implement mandatory conservation measures beginning this summer.



How Residential Water is Used in Orange County

Outdoor watering of lawns and gardens makes up approximately 60% of home water use. By cutting your outdoor watering by 1 or 2 days a week, you can dramatically reduce your overall water use.

Visit www.bewaterwise.com for water saving tips and ideas for your home and business.



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.

Questions about your water?

Contact us for answers.

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 information about this report or your water quality information in general, please contact Casey Parks, Water Quality Coordinator, at (949) 718-3428. The City of Newport Beach Council meetings begin at 7:00 p.m. on the second and fourth Tuesday of each month and are open to the public. Meetings are held at the Council Chambers located at 3300 Newport Boulevard, Newport Beach. Matters from the public are heard at each meeting. Please feel free to participate in these meetings.

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.

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.

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).

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.



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 (800) SOS-RADON.

Drinking Water Fluoridation

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water. In December 2007, the Metropolitan Water District of Southern California joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. In line with recommendations from the CDPH, as well as the U.S. Centers for Disease Control and Prevention, Metropolitan adjusted the natural fluoride level in imported treated water from the Colorado River and State Project water to the

optimal range for dental health of 0.7 to 1.3 parts per million. Our local water is not supplemented with fluoride. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

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

www.cdc.gov/Oralhealth/publications/factsheets/
American Dental Association

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

American Water Works Association: www.awwa.org
City of Newport Beach:

www.city.newport-beach.ca.us/utilities

For more information about Metropolitan's fluoridation program, please contact Edgar G. Dymally at (213) 217-5709 or at edymally@mwdh2o.com.

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.



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 Newport Beach: www.city.newport-beach.ca.us/utilities

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 • www.watersmartnewport.com

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.

| 2008 Metropolitan Water District of Southern California Treated Surface Water | | | | | | |
|---|--|----------------|----------------|---------------------|----------------|---|
| Chemical | MCL | PHG, or (MCLG) | Average Amount | Range of Detections | MCL Violation? | Typical Source of Contaminant |
| Radiologicals – Tested in 2008 | | | | | | |
| Alpha Radiation (pCi/L) | 15 | (0) | 5.6 | 3.8 – 9.3 | No | Erosion of Natural Deposits |
| Beta Radiation (pCi/L) | 50 | (0) | 4.3 | ND – 6.4 | No | Decay of Man-made or Natural Deposits |
| Uranium (pCi/l) | 20 | 0.42 | 3.3 | 2.9 – 3.7 | No | Erosion of Natural Deposits |
| Inorganic Chemicals – Tested in 2008 | | | | | | |
| Aluminum (ppm) | 1 | 0.6 | 0.16 | 0.08 – 0.28 | No | Treatment Process Residue, Natural Deposits |
| Arsenic (ppb) | 10 | 0.004 | 2.4 | ND – 2.9 | No | Erosion of Natural Deposits |
| Barium (ppm) | 1 | 2 | 0.12 | 0.11 – 0.12 | No | Erosion of Natural Deposits |
| Fluoride (ppm) treatment-related | Control Range 0.7 – 1.3 ppm Optimal Level 0.8 ppm | | 0.8 | 0.6 – 0.9 | No | Water Additive for Dental Health |
| Nitrate as NO ₃ (ppm) | 45 | 45 | 2.2 | ND – 2.6 | No | Agriculture Runoff and Sewage |
| Secondary Standards* – Tested in 2008 | | | | | | |
| Aluminum (ppb) | 200* | 600 | 164 | 78 – 280 | No | Treatment Process Residue, Natural Deposits |
| Chloride (ppm) | 500* | n/a | 96 | 92 – 103 | No | Runoff or Leaching from Natural Deposits |
| Color (color units) | 15* | n/a | 2 | 1 – 2 | No | Runoff or Leaching from Natural Deposits |
| Odor (threshold odor number) | 3* | n/a | 2 | 2 | No | Naturally-occurring Organic Materials |
| Specific Conductance (µmho/cm) | 1,600* | n/a | 947 | 837 – 1,080 | No | Substances that Form Ions in Water |
| Sulfate (ppm) | 500* | n/a | 212 | 170 – 272 | No | Runoff or Leaching from Natural Deposits |
| Total Dissolved Solids (ppm) | 1,000* | n/a | 569 | 505 – 668 | No | Runoff or Leaching from Natural Deposits |
| Turbidity (ntu) | 5* | n/a | 0.05 | 0.04 – 0.05 | No | Runoff or Leaching from Natural Deposits |
| Unregulated Chemicals – Tested in 2008 | | | | | | |
| Alkalinity, total as CaCO ₃ (ppm) | Not Regulated | n/a | 110 | 100 – 121 | n/a | Runoff or Leaching from Natural Deposits |
| Boron (ppb) | Not Regulated | n/a | 140 | 130 – 150 | n/a | Runoff or Leaching from Natural Deposits |
| Calcium (ppm) | Not Regulated | n/a | 61 | 55 – 72 | n/a | Runoff or Leaching from Natural Deposits |
| Hardness, total as CaCO ₃ (ppm) | Not Regulated | n/a | 257 | 226 – 300 | n/a | Runoff or Leaching from Natural Deposits |
| Hardness, total (grains/gal) | Not Regulated | n/a | 15 | 13 – 18 | n/a | Runoff or Leaching from Natural Deposits |
| Magnesium (ppm) | Not Regulated | n/a | 25 | 22 – 29 | n/a | Runoff or Leaching from Natural Deposits |
| N-Nitrosodimethylamine NDMA (ppt) | Not Regulated | n/a | 16 | 16 | n/a | Byproduct of Drinking Water Disinfection |
| pH (pH units) | Not Regulated | n/a | 8.1 | 8.0 – 8.2 | n/a | Hydrogen Ion Concentration |
| Potassium (ppm) | Not Regulated | n/a | 4.5 | 4.1 – 4.9 | n/a | Runoff or Leaching from Natural Deposits |
| Sodium (ppm) | Not Regulated | n/a | 94 | 85 – 106 | n/a | Runoff or Leaching from Natural Deposits |
| Total Organic Carbon (ppm) | Not Regulated | TT | 2.3 | 1.9 – 2.5 | n/a | Various Natural and Man-made Sources |
| Vanadium (ppb) | Not Regulated | n/a | 3.8 | 3.5 – 4.0 | n/a | Runoff or Leaching from Natural Deposits |

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;
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 | Treatment Technique | Turbidity Measurements | TT Violation? | Typical Source of Contaminant |
|--|---------------------|------------------------|---------------|-------------------------------|
| 1) Highest single turbidity measurement | 0.3 NTU | 0.05 | 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.

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 City of Newport Beach Utilities Department was completed in December 2002. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: Dry cleaners, gas stations, and known contaminant plumes.

A copy of the complete assessment is available at Department of Public Health Office of Drinking Water, Santa Ana District, 28 Civic Center Plaza Room 325, Santa Ana, CA 92701. You may request a summary of the assessment by contacting the City of Newport Beach Utilities Department at (949) 718-3428.

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.

Tradúzcalo o hable con alguien
que lo entienda bien.



City of Newport Beach
Utilities Department

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