

our 2015 Water Quality Report

1990, California public water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers all water quality testing performed in calendar year 2014.**

The City of Huntington Beach Public Works Utilities Division vigilantly monitors your water supply and, as in years past, the water delivered to your home meets all drinking water quality standards required by federal and state regulatory agencies. The U.S. Environmental Protection Agency and the State Water Resources Control Board's Division of Drinking Water (DDW) are the agencies responsible for establishing and enforcing drinking water quality standards. In some cases, the City goes beyond what is required by testing for unregulated chemicals that pose known health risks, but do not have established water standards. In addition, the Orange



County Water District (OCWD), which manages the groundwater basin, and the Metropolitan Water District of Southern California (MWDSC), which supplies imported treated surface water to the City, test for unregulated chemicals in our water supplies. Monitoring for unregulated chemicals helps USEPA and DDW determine where certain chemicals occur and whether new standards need to be established for those chemicals in order to protect public health.

Your drinking water is constantly monitored from source to tap for regulated and unregulated constituents through drinking water quality testing programs carried out by OCWD for groundwater, MWDSC for treated surface water and the Huntington Beach Public Works Utilities Division for groundwater wells, reservoirs, and distribution system.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, may be more than one year old.

Need to Conserve has Never Been Greater

As California enters its fourth year of drought, water conservation has become vitally important for us all. There are many areas within our homes where we can save water, both indoors and outdoors, where our gardens and lawns receive almost 60% of all the water we use. To learn more about the drought, or to find useful tips for how to conserve water, visit:

www.SaveOurWater.com

or www.BeWaterWise.com

To learn about programs and devices that can help save water, along with information on rebates for these water saving resources, visit:

www.OCWaterSmart.com



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 Customer Service Representative. Telefono: (714) 536-5921.



City of Huntington Beach

Public Works Utilities Division
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Huntington Beach, California 92648

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 Huntington Beach Utilities Division

2015 Drinking Water Quality Report



Important Information the EPA Would Like You to Know

Issues in Water Quality that Could Affect Your Health

Not Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those with cancer who are receiving 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.

Cryptosporidium

Cryptosporidium is a microscopic organism that, if ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. MWDSC tested their source water and surface water for *Cryptosporidium* in 2014 but did not detect it. If it is ever detected, *Cryptosporidium* is controlled by an effective treatment combination of sedimentation, filtration and disinfection. For more information, contact the California State Water Resources Control Board (CSWRCB) and the federal Centers for Disease Control and Prevention (CDC) for appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants. For more information on drinking water standards, call the California State Water Hotline at (800) 426-4791.

Water Quality Standards?

Drinking water standards established by USEPA and DDW set minimum standards that may affect consumer health or aesthetic quality of drinking water. The chart in this report shows the various types of water quality standards:

Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are based on the PHGs (or MCLGs) as is economically and technologically feasible.

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.

MCLs: Set to protect the odor, taste, and appearance of drinking water.

Drinking Water Standard: MCLs for contaminants that are listed along with their monitoring and reporting requirements and water treatment requirements.

Maximum Contaminant Level Goal (MCLG): The concentration of a contaminant, which, if exceeded, triggers treatment or other actions that a water system must follow.

Contaminants Measured?

Water samples are collected and tested throughout the year. Contaminants measured include:

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)

Water Quality Goal?

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

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.

Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of disinfectants to control microbial contaminants.

between 7 a.m. to 1 p.m. Pacific Time, or visit them on the web at www.epa.gov/drink.

Chloramines

Huntington Beach imports water from MWDSC which produces water that is treated with chloramines, a combination of chlorine and ammonia, as its drinking water disinfectant. Chloramines are effective killers of

bacteria and other microorganisms that may cause disease. Chloramines form fewer disinfection by-products and have no odor when used properly. People who use kidney dialysis machines may want to take special precautions and consult their physician for the appropriate type of water treatment. Customers who maintain fish ponds, tanks or aquaria should also make necessary adjustments in water quality treatment, as

2014 City of Huntington Beach 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 and 2014							
Alpha Radiation (pCi/L)	15	(0)	ND	ND	ND – 4.0	No	Erosion of Natural Deposits
Beta Radiation (pCi/L)	50	(0)	NR	5	4.0 – 6.0	No	Decay of Man-made or Natural Deposits
Uranium (pCi/L)	20	0.43	3.2	3.0	1.4 – 7.6	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2014							
Aluminum (ppm)	1	0.6	ND	0.17	ND – 0.31	No	Treatment Process Residue, Natural Deposits
Arsenic (ppb)	10	0.004	<2.0	ND	ND – 2.4	No	Erosion of Natural Deposits
Barium (ppm)	1	2	ND	0.11	ND – 0.11	No	Refinery Discharge, Erosion of Natural Deposits
Fluoride (ppm) naturally-occurring	2	1	0.38	NR	0.26 – 0.46	No	Erosion of Natural Deposits
Fluoride (ppm) treatment-related	Control Range 0.7 – 1.3 ppm Optimal Level 0.8 ppm		See Footnote (1)	0.80	0.7 – 1	No	Water Additive for Dental Health
Nitrate as NO ₃ (ppm)	45	45	1.4	ND	ND – 4.7	No	Agriculture Runoff and Sewage
Nitrate and Nitrite as N (ppm)	10	10	<0.4	ND	ND – 1.1	No	Agriculture Runoff and Sewage
Secondary Standards* – Tested in 2014							
Aluminum (ppb)	200*	600	ND	170	ND – 310	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	56	90	14 – 120	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	1.1	1.0	ND – 7.0	No	Runoff or Leaching from Natural Deposits
Odor (odor units)	3*	n/a	<1.0	1.0	ND – 8.0	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	571	980	370 – 1,000	No	Substances that form Ions in Water
Sulfate (ppm)	500*	n/a	65	230	29 – 240	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	368	630	210 – 650	No	Runoff or Leaching from Natural Deposits
Turbidity (NTU)	5*	n/a	0.10	ND	ND – 1.0	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2014							
Alkalinity, total (ppm as CaCO ₃)	Not Regulated	n/a	161	120	120 – 210	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	<0.1	0.1	ND – 0.13	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	64	72	23 – 143	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (ppm)	Not Regulated	n/a	205	290	64 – 450	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gal)	Not Regulated	n/a	12	17	3.8 – 26	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	9.9	26	1.7 – 27	n/a	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	8.0	8.1	7.9 – 8.2	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	2.8	4.6	1.8 – 4.8	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	49	94	36 – 99	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	Not Regulated	TT	<0.30	2.6	ND – 2.9	n/a	Various Natural and Man-made Sources
Vanadium (ppb)	NL=50	n/a	<3.0	ND	ND – 6.9	n/a	Runoff or Leaching from Natural Deposits

ppb = parts-per-billion; ppm = parts-per-million; 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; NL = Notification Level; n/a = not applicable; TT = treatment technique. *Contaminant is regulated by a secondary standard.
(1) The City of Huntington Beach and the Metropolitan Water District of Southern California add fluoride to the naturally-occurring levels in order to help prevent dental cavities. The fluoride level in the treated water is maintained within an optimal range of 0.7 to 1.3 as required by the California Department of Public Health regulations.

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 Runoff
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil Runoff

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.

Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Local Groundwater	Average MWD Surface Water	Range of Detections	Most Recent Sampling Date
1,4-Dioxane (ppb)	1	n/a	0.3	ND	ND – 1.18	2014
1,1-Dichloroethane (ppb)**	MCL = 5	3	< 0.03	ND	ND – 0.12	2014
Chlorate (ppb)	800	n/a	9.9	53	ND – 99.9	2014
Chromium, Hexavalent (ppb)***	MCL = 10	0.02	0.19	0.07	0.03 – 0.51	2014
Chromium, Total (ppb)****	MCL = 50	MCLG = 100	< 0.2	< 0.2	ND – 0.5	2014
Molybdenum, Total (ppb)	n/a	n/a	4.93	4.7	3.5 – 6.8	2014
Strontium, Total (ppb)	n/a	n/a	591	931	236 – 1,240	2014
Vanadium, Total (ppb)	50	n/a	2.83	2.8	1 – 6.4	2014

**1,1-Dichloroethane is regulated with an MCL of 5 ppb but was not detected, based on the detection limit for purposes of reporting of 0.5 ppb.
***1,1-Dichloroethane was included as part of the unregulated chemicals requiring monitoring.
****Hexavalent chromium is regulated with an MCL of 10 ppb but was not detected, based on the detection limit for purposes of reporting of 1 ppb.

The Quality of Your Water is Our Primary Concern

Sources of Supply

Orange County's water supplies are a blend of groundwater provided by OCWD and water imported from Northern California and the Colorado River by the Municipal Water District of Orange County (MWDOC) via MWDSC. Groundwater comes from a natural underground aquifer replenished with water from the Santa Ana River, Orange County's Groundwater Replenishment System, and imported water. The groundwater basin is 350 miles long and lies beneath north and central Orange County from Irvine to the Los Angeles County border and from Santa Ana to the Pacific Ocean. More than 20 cities and water districts draw from the basin to provide water for homes and businesses.

In 2014, the City of Huntington Beach water consisted of 70% groundwater and 30% imported treated surface water. The City operates 10 groundwater wells and 3 surface water connections. Huntington Beach also has emergency water connections with the neighboring cities of Fountain Valley, Seal Beach, and Westminster.

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 are becoming 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 treatment and supply development programs, including water reuse and recycling, desalination, expansion, recharge facility construction, ocean and brackish water desalination, surface and underground storage, and water use efficiency programs. These efforts are helping to enhance long-term countywide water reliability and sustainability.

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 right investments today in new water supply and management projects to ensure an abundant and high-quality water supply for our future.

Information About Drinking Water Contaminants

Sources of drinking water (both tap water and bottled water) include rivers, streams, ponds, reservoirs, springs and wells. As water travels over the surface 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 activities of animal and human activity.

Contaminants that may be present in source water include:

Biological contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Pesticides and herbicides may come from a variety of sources such as agriculture, residential lawn care, stormwater runoff and residential uses.

Inorganic contaminants, such as salts and metals, can be naturally occurring or can be introduced from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.

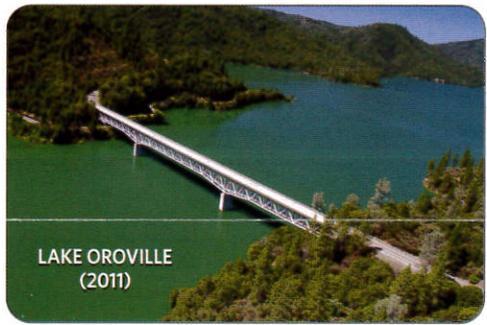
Organic chemical contaminants, including synthetic and volatile organic chemicals, can be by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agricultural application and other sources.

Radionuclides can be naturally occurring or the result of oil and gas production or mining activities.

To ensure that tap water is safe to drink, USEPA and the DDW prescribe maximum contaminant levels that limit the amount of certain contaminants in water provided by public



LAKE OROVILLE (2014)



LAKE OROVILLE (2011)

water systems. DDW 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.

Fluoridation

Fluoride occurs naturally in Huntington Beach's water supplies. In addition to the natural levels, the City adds a small amount of fluoride to the water to promote dental benefits per a majority vote of the community during the early 1970s.

Fluoridation's primary benefit is to help prevent tooth decay in children. Because of the dramatic health benefits of fluoridating drinking water, a 1997 Assembly Bill of the State of California mandated all large system water suppliers to begin fluoridating their systems.

The City's water is fluoridated to the DDW optimal level, within a range of 0.7 to 1.3 parts per million (ppm).

For additional information about the fluoridation of drinking water, please visit:

U.S. Centers for Disease Control and Prevention:
www.cdc.gov/fluoridation/

State Water Resources Control Board, Division of Drinking Water:
www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml

Conservation Tips for Inside Your Home

Collect water used to wash fruits and vegetables
Use it to water your houseplants

Wash only full loads of laundry and dishes:
Saves up to 50 gallons per week

Plug the sink instead of running water to rinse your razor
Saves up to 300 gallons a month

Install low-flow shower heads
Saves 2.5 gallons per shower

Buy water-saving devices like high-efficiency toilets and clothes washers. You'll save gallons of water per day, and many of these items are eligible for rebates. To learn more, visit: www.ocwatersmart.com.

*Talk to your family and friends about saving water.
If everyone does a little, we all benefit a lot.*



Questions about your water? Contact us for answers.

For information or concerns about this report, or your water quality in general, please contact Derek Smith or Jon Erickson at (714) 536-5921, or send an 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, or at the monthly Public Works Commission meeting on the third Wednesday of every month at 5:00 pm (refer to the City website — www.huntingtonbeachca.gov/ — for location). 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 aquifer. 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 USEPA hotline at (800) 426-4791.