2020
Drinking Water Quality Report

The City of
Huntington
Beach
Utilities Division

Your 2020 Water Quality Report

Since 1990, California public and private water utilities have been providing an annual Drinking Water Quality Report to their customers. **This year's report covers all drinking water quality testing performed in calendar year 2019.**

The City of Huntington Beach Public Works Utilities Division vigilantly safeguards your water supply and, as in years past, the water delivered to your home or business meets all drinking water quality standards required by federal and state regulatory agencies. The U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board, Division of Drinking Water (DDW) are the agencies responsible for establishing and enforcing drinking water quality standards in the State of California.

In some cases, the City goes beyond what is required by testing for unregulated chemicals that may have known health risks, but do not have drinking 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 treated imported surface water to the City, also test for regulated and unregulated chemicals in our water supply. 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 imported surface water and the Huntington Beach Utilities Division at the City's groundwater wells, reservoirs, and distribution system.

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

Your Water: Always Available, Always Assured

MWDSC's Diemer Water Treatment Plant, located in the hills above Yorba Linda, processes up to 520 million gallons of clean water per day — enough to fill the Rose Bowl every 4 hours. The water is a blend from both the Colorado River Aqueduct and the State Water Project. At 212-acres, it's one of the largest water treatment plants in the U.S. It provides nearly half of Orange County's total water supply.

Water flowing from Diemer meets — or exceeds — all state and federal regulations. And it is kept safe, from the treatment plant to your tap, by constant testing throughout the MWDSC distribution network and the City's water system. Every day, the City of Huntington Beach Utilities Division monitors the water quality at all sources, reservoirs, and various points on the distribution system. In addition, the OCWD performs testing of the City's groundwater wells by analyzing for hundreds of compounds, many more than are required by state and federal laws and regulations. This constant surveillance ensures your drinking water stays within the requirements mandated by the federal Safe Drinking Water Act.

State Water Project

This report contains
important information about your drinking water.
If you do not understand it,
speak with someone who can explain it.

Este informe contiene información
muy importante sobre su agua potable.
Para mas información ó traducción,
favor de contactar a
Customer Service Representative.
Telefono: (714) 536-5921.

The Quality of Your Water Is Our Primary Concern

Through drinking water quality testing programs carried out by the Orange County Water District (OCWD) for groundwater, the Metropolitan Water District of Southern California (MWDSC) for treated surface water and the City of Huntington Beach for the water distribution system, your drinking water is constantly monitored from source to tap for constituents that are regulated and unregulated.

Sources of Supply

The City's water supply is a blend of groundwater from eight City wells, and locally treated imported water originating from northern California and the Colorado River by MWDSC via the Municipal Water District of Orange County (MWDOC) through three imported water connections. Groundwater comes from a natural underground aquifer that is replenished with water from the Santa Ana River, local rainfall, Groundwater Replenishment System (GWRS) recycled water, and imported water. The groundwater basin, which is managed by OCWD, is about 350 square miles. It lies beneath north and central Orange County, from Irvine to the Los Angeles County border and from Yorba Linda to the Pacific Ocean. More than 19 cities and retail water districts draw from the basin to provide water to homes and businesses.

In 2019, City of Huntington Beach source water consisted of 77% local groundwater and 23% imported treated surface water. 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 must be even more conscientious about our water supply and maximize the efficient use of this precious natural resource.

OCWD implements and operates new and innovative water management and supply development programs, including water recycling, wetlands and recharge facility expansion, groundwater cleanup projects, storage programs, and water education programs for children through adults. MWDOC offers rebates and incentives to promote water-use efficiency and provides water education programs. Both agencies work cooperatively with Orange County retail water agencies to complete studies to assess water reliability in Orange County. These efforts are helping to enhance long-term countywide water reliability and water quality and a healthy water future for Orange County.

Your local and regional water agencies are committed to making the necessary investments in new water management projects today to ensure an abundant and high-quality water supply for generations to come.

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 underground aquifers. As water travels over the surface of the land, or through the layers of the earth, 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, 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, urban stormwater runoff and residential uses.
- **Inorganic contaminants**, such as salts and metals, can be naturally occurring or result 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, are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agricultural use and septic systems.
- **Radioactive contaminants** can be naturally occurring or the result of oil and gas production or mining activities.

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

The U.S. Food and Drug Administration regulations and California law 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, or visit: www.epa.gov/safewater.

Chloramines

Huntington Beach receives imported 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 than chlorine and have no odor when used properly. People who use kidney dialysis machines at home 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 chloramines are toxic to fish.

For further information please visit the USEPA webpage at www.epa.gov/dwreginfo/chloramines-drinking-water.

Federal and State Water Quality Regulations

— Water Quality Issues that Could Affect Your Health —

Disinfectants & 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 the risks of microbial waterborne diseases from our lives. 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 as it travels through the water distribution system. This "residual" chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home or business.

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. In January 2002, the Stage 1 Disinfectants / 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.

Stage 2 of the regulation was finalized by USEPA in 2006, which further controls allowable levels of DBPs in drinking water without compromising disinfection itself. A required distribution system evaluation was completed in 2008 and a Stage 2 monitoring plan has been approved by DDW. Full Stage 2 compliance began in 2012.

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 p.m. in the City Hall Council Chambers, or at the monthly Public Works Commission meeting held on the third Wednesday of every month at 5:00 p.m. (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. 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 Safe Drinking Water Hotline at (800) 426-4791, or on the web at: www.epa.gov/safewater.

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 to infections. These people should seek advice about drinking water from their health care providers.

COVID-19

The Coronavirus (COVID-19) does not present a threat to our water supply. We continually monitor and test the quality of your water and are committed to ensuring its safety. The Centers for Disease Control states the virus causing COVID-19 has not been detected in drinking water where conventional water treatment methods that use filtration and disinfection should remove or inactivate the COVID-19 virus. Our groundwater is taken from aquifers located over seven hundred feet below ground and is disinfected before it enters our water distribution system. Additional information about COVID-19 and your water supply is available at:

CDC: www.cdc.gov/coronavirus/2019-ncov/php/water.html

State DDW:
www.waterboards.ca.gov/publications_forms/publications/factsheets/

PFAS

Per- and polyfluoralkyl substances (PFAS) are a group of manmade chemicals prevalent in the environment that have been used in a variety of consumer products since the 1940's. PFAS chemicals have been detected in water throughout the nation. Studies have shown these chemicals may pose a hazard to human health. Currently there are no federal or state water standards for PFAS. However, the State Water Resources Control Board has adopted health-based non-enforceable advisories, which if exceeded could require a water system to notify their governing board (or city council), and for the source to be removed from service or be provided with treatment. Huntington Beach has tested its source water for PFAS since 2014 and has not detected levels at or above the State advisory level. Additional PFAS information is available at:

State DDW: www.waterboards.ca.gov/pfas/

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 water service lines and home plumbing.

The City of Huntington Beach Utilities 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 drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Lead Info Center Hotline at (800) 424-5323 , or visit: www.epa.gov/safewater/lead.

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 levels within a range of 0.6 to 1.2 parts per million (ppm).

Huntington Beach Utilities staff monitor daily to ensure the City's water meets or exceeds all regulatory quality standards.

Huntington Beach Utilities staff collects one of the many daily water samples used to test and verify the City's water quality.

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.html

Chart Legend

What are Water Quality Standards?

Drinking water standards established by USEPA and SWRCB 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.

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and SWRCB 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.

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)

2019 City of Huntington Beach Drinking Water Quality
Local Groundwater and Metropolitan Water District Treated Surface Water

Chemical	MCL	PHG (MCLG)	Avg. Local Groundwater	Avg. MWD Surface Water	Range of Detections	MCL Violation?	Typical Source of Contaminant
Radiologicals – Tested in 2015 and 2017							
Uranium (pCi/L)	20	0.43	2.65	ND	ND – 7.61	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2019							
Aluminum (ppm)	1	0.6	ND	0.124	ND – 0.065	No	Treatment Process Residue, Natural Deposits
Arsenic (ppb)	10	0.004	<2.0	ND	ND – 2.4	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	<0.1	ND	ND – 0.134	No	Refinery Discharge, Erosion of Natural Deposits
Bromate (ppb)	10	0.1	NR	2	ND – 5.9	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm) naturally-occurring	2	1	0.45	NR	0.28 – 0.58	No	Erosion of Natural Deposits
Fluoride (ppm) treatment-related *	2	1	0.8	0.7	0.1 – 0.9	No	Water Additive for Dental Health
Nitrate as N (ppm)	10	10	0.45	0.5	ND – 1.61	No	Agriculture Runoff and Sewage
Nitrate and Nitrite as N (ppm)	10	10	0.46	0.5	ND – 1.62	No	Agriculture Runoff and Sewage
Secondary Standards– Tested in 2019**							
Aluminum (ppb)	200**	600	ND	124	ND – 65	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500**	n/a	53.3	56	13.1 – 97.9	No	Runoff or Leaching from Natural Deposits
Color (color units)	15**	n/a	<1	ND	ND – 4	No	Naturally-occurring Organic Materials
Manganese (ppb)	50**	n/a	<20	ND	ND – 24.7	No	Runoff or Leaching from Natural Deposits
Odor (threshold odor number)	3**	n/a	<1	ND	ND – 4	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600**	n/a	564	514	361 – 768	No	Substances that Form Ions in Water
Sulfate (ppm)	500**	n/a	69.7	91	21.8 – 148	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000**	n/a	382	304	242 – 720	No	Runoff or Leaching from Natural Deposits
Turbidity (NTU)	5**	n/a	0.21	ND	ND – 0.7	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2019							
Alkalinity, total as $CaCO_3$ (ppm)	Not Regulated	n/a	156	72	69 – 198	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	<0.1	0.12	ND – 0.12	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	76.6	30	22.8 – 145	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as $CaCO_3$ (ppm)	Not Regulated	n/a	241	127	67.6 – 457	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	14	7	4 – 27	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	12.1	14	2.6 – 23.1	n/a	Runoff or Leaching from Natural Deposits
Perfluorohexanoic Acid (ppt)	Not Regulated	n/a	NR	2.3	2.2 – 2.3	n/a	Refinery Discharge, Erosion of Natural Deposits
pH (pH units)	Not Regulated	n/a	7.9	8.4	7.7 – 8.5	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	3.1	2.8	1.8 – 4.6	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	50.5	56	34.8 – 81.4	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	<0.3	2.4	ND – 2.6	n/a	Various Natural and Man-made Sources
Vanadium (ppb)	NL=50	n/a	<3	ND	ND – 9.7	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;
NR = Not Required to be analyzed; **ND** = not detected; **<** = average is less than the detection limit for reporting purposes; **MCL** = Maximum Contaminant Level;
PHG = California Public Health Goal; **NL** = Notification Level; **n/a** = not applicable; **TT** = treatment technique
*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 0.6 to 1.2 as required by the State Water Resources Control Board, Division of Drinking Water regulations.
**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	0.05	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 chemicals in drinking water that are difficult and sometimes impossible to measure directly.
NTU = nephelometric turbidity units

Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Local Groundwater	Average MWD Surface Water	Range of Detections	Most Recent Sampling Date
Bromide (ppm)	n/a	n/a	0.25	NR	0.076 – 0.785	2019
Germanium (ppb)	n/a	n/a	0.04	0.1	ND – 0.4	2019
Manganese (ppb)***	50*	n/a	8.9	1.7	0.8 – 20.1	2019
Total Organic Carbon (Unfiltered) (ppm)	n/a	n/a	0.26	NR	0.06 – 0.7	2019

*** Manganese was included as part of the unregulated chemicals requiring monitoring.

2019 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	39	16 – 75	No	Byproducts of chlorine disinfection
Haloacetic Acids (ppb)	60	16	ND – 24	No	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4 / 4)	0.88	0.61 – 1.3	No	Disinfectant added for treatment
Aesthetic Quality					
Odor (threshold odor number)	3*	1.2	1 – 1.4	No	Naturally-occuring Organic Materials
Turbidity (NTU)	5*	0.11	0.01 – 1.4	No	Erosion of natural deposits

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; six locations are tested weekly for color, odor, and turbidity. Color was not detected in 2019.
MRDL = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal
*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)	Public Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Contaminant
Lead (ppb)	15	0.2	7	1 out of 60	No	Corrosion of household plumbing
Copper (ppm)	1.3	0.3	0.18	0 out of 60	No	Corrosion of household plumbing

Every three years, at least 50 selected residences are tested for lead and copper at-the-tap. The most recent set of 60 samples was collected in 2018.
Lead was detected in 14 samples, one of which exceeded the regulatory lead action level (AL). Copper was detected in 35 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.
In 2019, no school submitted a request to be sampled for lead.

Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Bromochloroacetic Acid (ppb)	n/a	n/a	3.2	0.8 – 7.6	2019
Bromodichloroacetic Acid (ppb)	n/a	n/a	1.5	ND – 3	2019
Chlorodibromoacetic Acid (ppb)	n/a	n/a	1.2	0.6 – 3.6	2019
Dibromoacetic Acid (ppb)	n/a	n/a	2.3	1.2 – 7	2019
Dichloroacetic Acid (ppb)	n/a	MCLG = 0	3.2	ND – 6.2	2019
Monobromoacetic Acid (ppb)	n/a	n/a	0.12	ND – 0.9	2019
Tribromoacetic Acid (ppb)	n/a	n/a	0.3	ND – 2.7	2019
Trichloroacetic Acid (ppb)	n/a	MCLG = 20	1.2	ND – 2.1	2019

Source Water Assessments

Imported (MWDSC) Water Assessment

Every five years, MWDSC is required by DDW to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters.

The most recent watershed sanitary survey of its source water supplies from the Colorado River was updated in 2015 and the State Water Project was updated in 2016.

Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

USEPA also requires MWDSC to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary survey. MWDSC completed its SWA in December 2002. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

A copy of the most recent summary of either Watershed Sanitary Survey or the SWA can be obtained by calling MWDSC at (800) CALL-MWD (225-5693).

Groundwater Assessment

An assessment of the groundwater 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 by contacting Brian Ragland, the City's Utilities Manager, at (714) 536-5921.

Where Does Our Water Come From?

...and How Does It Get to Us?

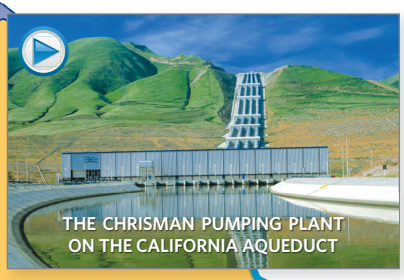
Have you ever wondered where your water comes from? Here in the City of Huntington Beach, our water is drawn from local groundwater supplies then blended with water imported from both Northern California and the Colorado River.

Water from Northern California travels to us through a complex delivery system known as the California State Water Project. Designed and built in the 1960s, the State Water Project is one of the largest public water and power utilities in the world, providing drinking water for more than 25 million people statewide.

Managed by the California Department of Water Resources, the project stretches over 700 miles, from Lake Oroville in the north to Lake Perris in the south. Water stored in Lake Oroville, Folsom Lake, and other tributaries, and fed by snow melt from the Sierra Nevada Mountains, flows into the Sacramento and San Joaquin rivers, and from there into reservoirs in the Bay-Delta region.

From the Bay-Delta, giant pumps lift the water into the 444-mile-long California Aqueduct, there to flow southward to cities and farms in Central and Southern California. Composed mainly of concrete-lined canals, the Aqueduct also includes over 20 miles of tunnels, more than 130 miles of pipelines, and 27 miles of siphons. Along the way, the water is pumped 2,882 feet over the Tehachapi Mountains. The Edmonston Pumping Plant alone lifts millions of gallons a day up 1,926 feet, the highest single water lift in the world.

Is it any wonder the State Water Project is the largest single consumer of power in the State of California?

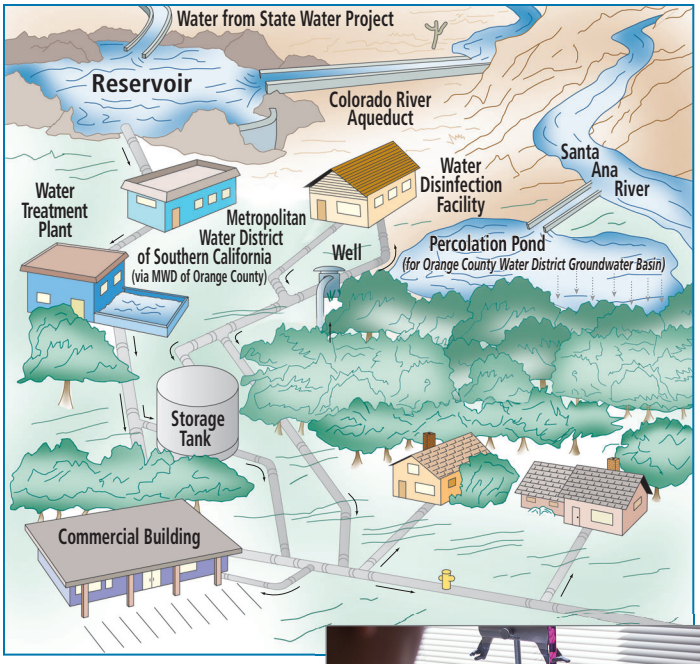


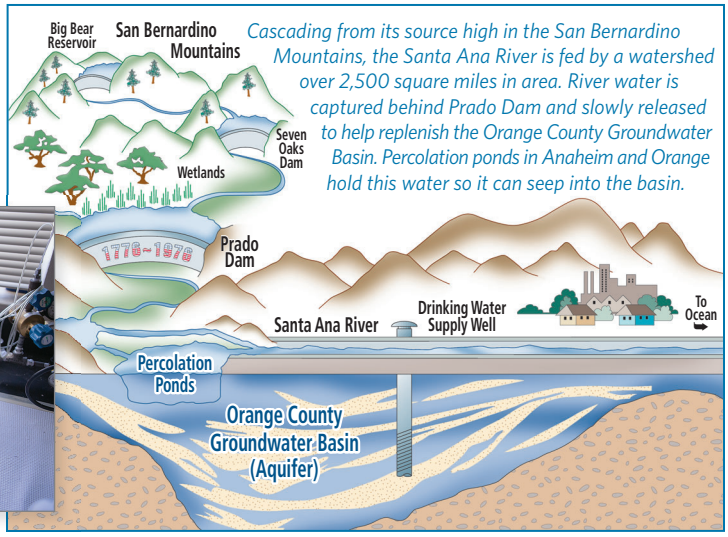
Managed by the Metropolitan Water District of Southern California, the Colorado River Aqueduct begins near Parker Dam on the Colorado River. There, the Gene Pumping Station lifts the water over 300 feet as it begins its 242 mile journey to Lake Mathews, just outside the City of Corona. Along the way, the water passes through two reservoirs, five pumping stations, 62 miles of canals, and 176 miles of tunnels, buried conduits and siphons. All told, the water is lifted four times, a total of more than 1,300 feet.

After its journey across the Mojave Desert, the water descends into the Coachella Valley and through the San Gorgonio Pass. Near Cabazon, the aqueduct flows underground, passing beneath the San Jacinto Mountains and continuing until it reaches its terminus at Lake Mathews. From there, 156 miles of distribution lines, along with eight more tunnels and five drinking water treatment plants, delivers treated water throughout Southern California.

How Does Our Water Get to Us?

Importing water from hundreds of miles away is only the start to providing you clean, fresh water. Once the water is in the southland, the Metropolitan Water District of Southern California, in partnership with the Municipal Water District of Orange County, treats and pumps the water to individual cities throughout Orange County. The Orange County Water District, which manages the groundwater basin beneath Central and Northern Orange County, ensures the quality and supply of groundwater throughout its service area. The City of Huntington Beach sits atop the county aquifer and draws water from this local source, then blends it with the imported surface water.





Cascading from its source high in the San Bernardino Mountains, the Santa Ana River is fed by a watershed over 2,500 square miles in area. River water is captured behind Prado Dam and slowly released to help replenish the Orange County Groundwater Basin. Percolation ponds in Anaheim and Orange hold this water so it can seep into the basin.

The City of Huntington Beach Utilities Division vigorously works to ensure the safety of your drinking water and, in conjunction with MWDSC and OCWD, continuously monitors the water to verify adherence with drinking water regulations.

The Need to Conserve Water Remains A High Priority Throughout California

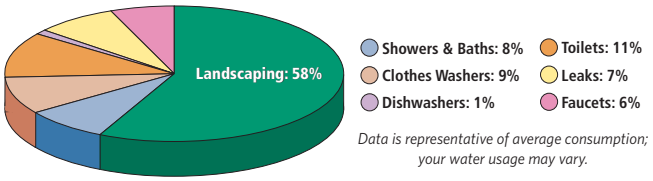
Southern California has an arid climate and wise water use needs to become a part of everyone's daily lives. For as finite as our water resources are, they get smaller every year. Simple water saving acts like the ones listed here can save countless gallons of water every day.

- Soak pots and pans instead of letting water run while you scrub them clean. ***This both saves water and makes the job easier.***
- Keep a pitcher of drinking water in the refrigerator. ***This can save gallons of water every day and it's always cold!***
- Plug the sink instead of running water to rinse your razor or wet your toothbrush. ***This can save upwards of 300 gallons of water a month.***
- Use a broom instead of a hose to clean off sidewalks and driveways. ***It takes very little time to sweep and the water savings quickly adds up.***
- Check your sprinkler system for leaks, overspray, and broken sprinkler heads and repair promptly. ***This can save countless gallons each time you water.***
- Water plants in the early morning. ***It reduces evaporation and ensures deeper watering.***

Where Do We Use Water the Most?

Outdoor watering of lawns and gardens makes up approximately 60% of home water use. By reducing your outdoor water use — by either cutting back on irrigation or planting more drought tolerant landscaping — you can dramatically reduce your overall water use.

Save the most where you use the most: Make your outdoor use efficient.



Data is representative of average consumption; your water usage may vary.

Where Can You Learn More?

There's a wealth of information on the internet about Drinking Water Quality and water issues in general. Some good sites to begin your own research are:

Metropolitan Water District of So. California: www.mwdh2o.com
California Department of Water Resources: www.water.ca.gov
The Water Education Foundation: www.watereducation.org

To learn more about **Water Conservation & Rebate Information**:
www.bewaterwise.com • www.ocwatersmart.com

And to see the Aqueducts in action, checkout these two videos:
Wings Over the State Water Project: youtu.be/8A1v1Rr2neU
Wings Over the Colorado Aqueduct: youtu.be/KipMQh5t0f4

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