2021
DRINKING WATER QUALITY REPORT

The City of
SEAL BEACH
Public Works Department

Seal Beach's water quality is equal to or better than what is required to safeguard public health.

Your 2021 Water Quality Report


The Colorado River

Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers calendar year 2020 drinking water quality testing and reporting.**

Your City of Seal Beach Water Department vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the 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 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. For example, the Orange County Water District (OCWD), which manages the groundwater basin, and the Metropolitan Water District of Southern California (MWD), which supplies treated imported surface water to the City, test for unregulated chemicals in our water supply. Unregulated chemical monitoring helps the USEPA and DDW determine where certain chemicals occur and whether new standards need to be established for those chemicals.

Through drinking water quality testing programs carried out by OCWD for groundwater, MWD for treated surface water, and the Seal Beach Water Department for the distribution system, your drinking water is constantly monitored from source to tap for regulated and unregulated constituents.

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, are more than one year old.

Quality Water is Our Priority

Turn the tap and the water flows, as if by magic. Or so it seems. The reality is considerably different, however. Delivering high-quality drinking water to our customers is a scientific and engineering feat that requires considerable effort and talent to ensure the water is always there, always safe to drink.

Because tap water is highly regulated by state and federal laws, water treatment and distribution operators must be licensed and are required to complete on-the-job training and technical education before becoming a state certified operator.

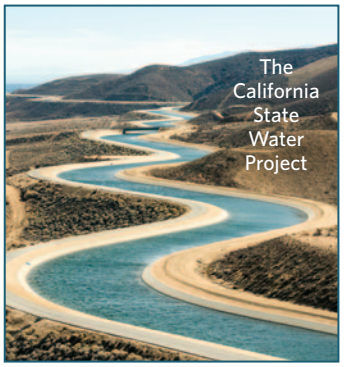
Our licensed water professionals have an understanding of a wide range of subjects, including mathematics, biology, chemistry, physics, and engineering. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water;
- Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- Conducting tests and inspections on water and evaluating the results;
- Documenting and reporting test results and system operations to regulatory agencies; and
- Serving our community through customer support, education, and outreach.

So, the next time you turn on your faucet, think of the skilled professionals who stand behind every drop.

Constant Monitoring Ensures Continued Excellence

Sources of Supply


The California State Water Project

Your water supply is a blend of groundwater pumped from three local wells by the City of Seal Beach Water Department and water imported from Northern California and the Colorado River by the Municipal Water District of Orange County (MWDOC) via the MWD.

Groundwater comes from a natural underground aquifer that is replenished with water from the Santa Ana River, local rainfall, imported water, and the Groundwater Replenishment System. The groundwater basin is 350 square miles and 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 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, MWDOC, and the City of Seal Beach 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 in new water management projects today to ensure an abundant and high-quality water supply for our future.

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.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agricultural application, and septic systems.

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 online at www.epa.gov/safewater.

To Safeguard Against Issues that May Affect Your Health

We Comply with All State & Federal Water Quality Regulations

Disinfectants 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 / 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 the 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.

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, MWD joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. MWD was in compliance with all provisions of the State's fluoridation system requirements.

Our three local groundwater wells are not supplemented with fluoride; they have naturally occurring fluoride levels of 0.46 parts per million or less.

Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

Additional information about the fluoridation of drinking water is available on these websites:

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

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

Immunocompromised 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 undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly persons and infants can be particularly at risk to infection. These people should seek advice about drinking water from their health care providers.

The USEPA and the national 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, or the web at www.epa.gov/safewater.

2020 Metropolitan Water District of Southern California Treated Surface Water

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
Radiologicals – Tested in 2020						
Alpha Radiation (pCi/L)	15	(0)	ND	ND – 3	No	Erosion of Natural Deposits
Beta Radiation (pCi/L)	50	(0)	ND	ND – 7	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	2	1 – 3	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2020						
Aluminum (ppm)	1	0.6	0.137	ND – 0.26	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.107	0.107	No	Refinery Discharge, Erosion of Natural Deposits
Bromate (ppb)	10	0.1	1.9	ND – 1.3	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm)	2	1	0.7	0.5 – 0.9	No	Water Additive for Dental Health
Secondary Standards* – Tested in 2020						
Aluminum (ppb)	200*	600	137	ND – 260	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	94	93 – 94	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	1	1	No	Naturally-occurring Organic Materials
Odor (threshold odor number)	3*	n/a	2	2	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	970	964 – 975	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	216	215 – 217	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	592	582 – 603	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2020						
Alkalinity, total as $CaCO_3$ (ppm)	Not Regulated	n/a	118	117 – 120	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.13	0.13	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	66	65 – 67	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as $CaCO_3$ (ppm)	Not Regulated	n/a	265	261 – 269	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	15	15 – 16	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	26	25 – 26	n/a	Runoff or Leaching from Natural Deposits
N-nitrosodimethylamine (ppt)	NL = 10	n/a	3.1	3.1	n/a	Byproduct of Drinking Water Chloramination, Industrial Processes
pH (pH units)	Not Regulated	n/a	8.1	8.1	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.6	4.5 – 4.7	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	96	93 – 98	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.4	2.2 – 2.7	n/a	Various Natural and Man-made Sources

ppb = parts per billion; **ppm** = parts per million; **ppt** = parts per trillion; **pCi/L** = picoCuries per liter; **µmho/cm** = micromhos per centimeter; **ND** = not detected;
MCL = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal; **NL** = Notification Level; **n/a** = not applicable; **TT** = treatment technique
*Chemical 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 Chemical
1) Highest single turbidity measurement	0.3 NTU	0.04	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. **NTU** = nephelometric turbidity units
Low turbidity in the 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.

Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Germanium (ppb)	n/a	n/a	0.1	ND – 0.4	2018
Manganese (ppb)**	SMCL = 50	n/a	1.7	0.8 – 2.5	2018

SMCL = Secondary MCL

**Manganese is regulated with a secondary standard of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 20 ppb. Manganese was included as part of the unregulated chemicals requiring monitoring.

Chart Legend

What are Water Quality Standards?

Drinking water standards established by USEPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The charts in this report show 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 DDW 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 charts in this report include 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)

2020 City of Seal Beach Groundwater Quality

Chemical	MCL	PHG	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Contaminant
Radiologicals							
Uranium (pCi/L)	20	0.43	1.45	ND – 4.35	No	2019	Erosion of Natural Deposits
Inorganic Chemicals							
Fluoride (ppm)	2	1	0.41	0.39 – 0.44	No	2020	Erosion of Natural Deposits
Secondary Standards*							
Chloride (ppm)	500*	n/a	18.3	12.1 – 35.8	No	2020	Erosion of Natural Deposits
Odor (threshold odor number)	3*	n/a	ND	ND – 1	No	2020	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	395	336 – 469	No	2020	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	38.2	30.6 – 48.4	No	2020	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	241	216 – 258	No	2020	Erosion of Natural Deposits
Unregulated Chemicals							
Alkalinity, total (ppm as $CaCO_3$)	Not Regulated	n/a	130	120 – 146	n/a	2020	Erosion of Natural Deposits
Bicarbonate (ppm as HCO_3)	Not Regulated	n/a	154	138 – 178	n/a	2020	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	21.8	8.7 – 31.2	n/a	2020	Erosion of Natural Deposits
Hardness, total (ppm as $CaCO_3$)	Not Regulated	n/a	65.5	23.1 – 100	n/a	2020	Erosion of Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	3.8	1.4 – 5.8	n/a	2020	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	2.6	ND – 5.4	n/a	2020	Erosion of Natural Deposits
pH (pH units)	Not Regulated	n/a	8.1	8 – 8.4	n/a	2020	Acidity, hydrogen ions
Potassium (ppm)	Not Regulated	n/a	1	0.7 – 1.8	n/a	2020	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	60.8	47.4 – 72.3	n/a	2020	Erosion of Natural Deposits

ppb = parts-per-billion; **ppm** = parts-per-million; **µmho/cm** = micromhos per centimeter; **pCi/L** = picoCuries per liter; **ND** = not detected; **n/a** = not applicable;
MCL = Maximum Contaminant Level; **PHG** = California Public Health Goal *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Bromide (ppm)	n/a	n/a	0.05	0.036 – 0.083	2019
Germanium (ppb)	n/a	n/a	0.1	ND – 0.4	2019
Manganese (ppb) **	SMCL = 50	n/a	1.7	ND – 5.8	2019
Total Organic Carbon (Unfiltered) (ppm)	n/a	n/a	0.31	0.08 – 0.65	2019

SMCL = Secondary MCL
**Manganese is regulated with a secondary standard of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 20 ppb. Manganese was included as part of the unregulated chemicals requiring monitoring.

Source Water Assessments

Imported (MWD) Water Assessment

Every five years, MWD 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 surveys 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 MWD to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWD 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 MWD at (800) CALL-MWD (225-5693).

Groundwater Assessment

An assessment of the drinking water sources for the City of Seal Beach was completed in December 2002. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: sewer collection systems and military installations.

A copy of the complete assessment is available at State Water Resources Control Board, Division of Drinking Water, 2 MacArthur Place, Suite 150, Santa Ana, California 92707. You may request a summary of the assessment by contacting the City of Seal Beach Water Department at (562) 431-2527 ext. 1409.

2020 City of Seal 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	41	10 – 46	No	Byproducts of chlorine disinfection
Haloacetic Acids (ppb)	60	11	ND – 15	No	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4 / 4)	1.38	1.01 – 1.89	No	Disinfectant added for treatment
Aesthetic Quality					
Turbidity (NTU)	5*	0.15	ND – 0.33	No	Erosion of natural deposits

Four locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids;
Eighteen locations are tested monthly for color, odor and turbidity. Color and odor were not detected in 2020.
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).

Bacterial Quality	MCL	MCLG	Highest Monthly Percent Positives	MCL Violation?	Typical Source of Contaminant
Total Coliform Bacteria	5.0%	0	2.7%	No	Naturally present in the environment

No more than 5.0% of the monthly samples may be positive for total coliform bacteria.
The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/*E. coli*, constitutes an acute MCL violation.

Lead and Copper Action Levels at Residential Taps

	Action Level (AL)	Public Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Contaminant
Lead (ppb)	15	0.2	ND	0 / 31	No	Corrosion of household plumbing
Copper (ppm)	1.3	0.3	0.15	0 / 31	No	Corrosion of household plumbing

Every three years, at least 30 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2018.
Copper was found in 13 homes; none exceeded the regulatory action level. Lead was not found in any home.
The regulatory action level is the concentration of lead or copper which, if exceeded in more than ten percent of the homes tested, triggers treatment or other requirements that a water system must follow.
In 2020, no school submitted a request to be sampled for lead.

Unregulated Chemicals Requiring Monitoring in the Distribution System

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Bromochloroacetic Acid (ppb)	n/a	n/a	2.8	1.1 – 4.6	2019
Bromodichloroacetic Acid (ppb)	n/a	n/a	1.2	0.7 – 2.1	2019
Chlorodibromoacetic Acid (ppb)	n/a	n/a	0.72	ND – 1.3	2019
Dibromoacetic Acid (ppb)	n/a	n/a	1.5	0.4 – 2.8	2019
Dichloroacetic Acid (ppb)	n/a	MCLG = 0	4.8	1.2 – 8.8	2019
Monobromoacetic Acid (ppb)	n/a	n/a	0.07	ND – 0.4	2019
Trichloroacetic Acid (ppb)	n/a	MCLG = 20	1.9	0.7 – 4.2	2019

About Lead in Tap Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Seal Beach Water Department 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 Safe Drinking Water Hotline, (800) 426-4791, or on the web at: www.epa.gov/safetwater/lead.

Total Coliform Rule

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements instituted during 2016. All water systems are required to comply with the state Total Coliform Rule. Effective April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule. The new federal rule protects public health by ensuring the integrity of the drinking water distribution system by monitoring for the presence of microbials (i.e., total coliform and *E. coli* bacteria). The U.S. EPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and resolve potential issues.

Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

Where Does Our Water Come From?

...and How Does It Get to Us?

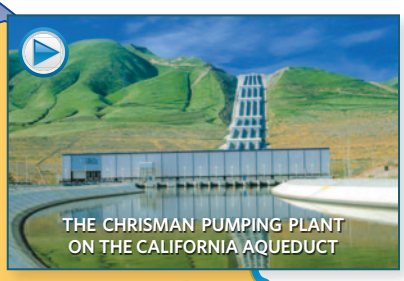
Have you ever wondered where your water comes from? Here in the City of Seal Beach our water is drawn from local groundwater supplies then blended with water imported from both Northern California and the Colorado River.

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.

Trinity Lake
Shasta Lake
REDDING
Lake Oroville
Feather River
Sacramento River
SACRAMENTO
Folsom Lake
New Hogan Reservoir
The Bay-Delta
SAN FRANCISCO
San Joaquin River
Millerton Lake
California Aqueduct
STATE WATER PROJECT
BAKERSFIELD
Lake Isabella
Chrisman Pumping Plant
Pyramid Lake
Castaic Lake
Silverwood Lake
Colorado Aqueduct
Lake Perris
Gene Pumping Station
LOS ANGELES
Lake Mathews
ORANGE COUNTY
SAN DIEGO
PACIFIC OCEAN
Colorado River

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for City of Seal Beach Water Utility

Our water system violated a drinking water monitoring requirement last year. **This was not an emergency**, but as our customers you have a right to know what happened and what we did to correct the situation.

What happened?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During January 2020 we did not complete all monitoring or testing for total coliform and, therefore, cannot be sure of the quality of your drinking water during that time.

We routinely collect 10 bacteriological samples per week at different locations throughout our water distribution system. On January 22, 2020, a routine water sample was determined to be total coliform positive by our State-certified laboratory.

In accordance with regulatory protocols a repeat set of three samples were to be collected for analysis within 24 hours at the station where the initial positive sample was collected. Two other samples were to be collected both downstream and upstream of the sampling station. One sample was also to be collected at each water supply well in operation at the time the positive sample was taken. Water Operations staff inadvertently collected only one repeat sample on January 23, at the station where the previous positive sample was taken the day before. This repeat sample tested negative for total coliform. All required samples were ultimately collected and all proved negative.

In addition, for the month of January 2020 samples could not be collected from one of the 10 sampling stations due to adjacent construction activities. Weekly sampling at this site resumed in February 2020.

What is being done?

The following corrective actions were implemented to prevent future TC monitoring violations: (1) increased employee training and development on distribution system bacteriological monitoring requirements; and (2) updated the Bacteriological Sampling Siting Plan to clarify instructions for collecting a complete set of repeat samples.

What should you do?

There is nothing you need do at this time.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly. You can do this by posting this public notice in a public place or distributing copies by hand or mail.

If you have questions, or would like more information, please contact Steve Myrter, P.E., Public Works Director, at (562) 431-2527 ext. 1321 or smyrter@sealbeachca.gov.

We Invite You to Learn More About Your Water's Quality

For information about this report, or your water quality in general, please contact Darrick Escobedo at (562) 431-2527 ext. 1409.

For information regarding opportunities to participate in decisions that may affect the quality of your water, please contact Darrick Escobedo at (562) 431-2527 ext. 1409.

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

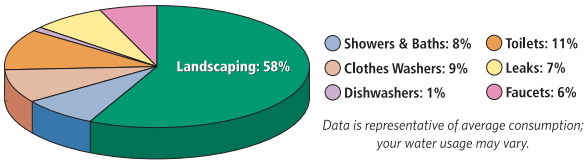
Wise Water Use is Good for Us All

- 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.***
- 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.***
- Soak pots and pans instead of letting water run while you scrub them clean. ***This both saves water and makes the job easier.***

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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