

Annual Water Quality Report

REPORTING YEAR 2016



Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시오.

This report is available for electronic viewing at <http://www.downeygis.org/wqr/2016.pdf>

[PWS ID# 1910034](#)

If you would like a paper copy of the 2016 report mailed to your home, please call (562) 904-7202.



Visit us at www.downeyca.org

For additional questions about your water quality please contact:
Bridgeth Tapia at (562) 904-7202
9252 Stewart & Gray Rd, Downey, CA 90241



You are welcome to attend the following public meetings at City Hall, 11111 Brookshire Ave.

City Council Meetings on the second and fourth Tuesday of each month at 6:30 p.m.

Public Works Committee meetings on the third Thursday of each month at 4:00 p.m.

Questions About Your Water? We are available to assist you!

For Rebates & Conservation tips: bewaterwise.com® (888) 376-3314



To Report Water Waste
(562) 904-7202
(Public Works Utilities)

USEPA Safe Drinking Water Hotline
(800) 426-4791
<http://water.epa.gov/drink/hotline>

For Information on Water Resources, Drinking Water Issues, and Public Health
www.epa.gov/watrhme
www.cdc.gov

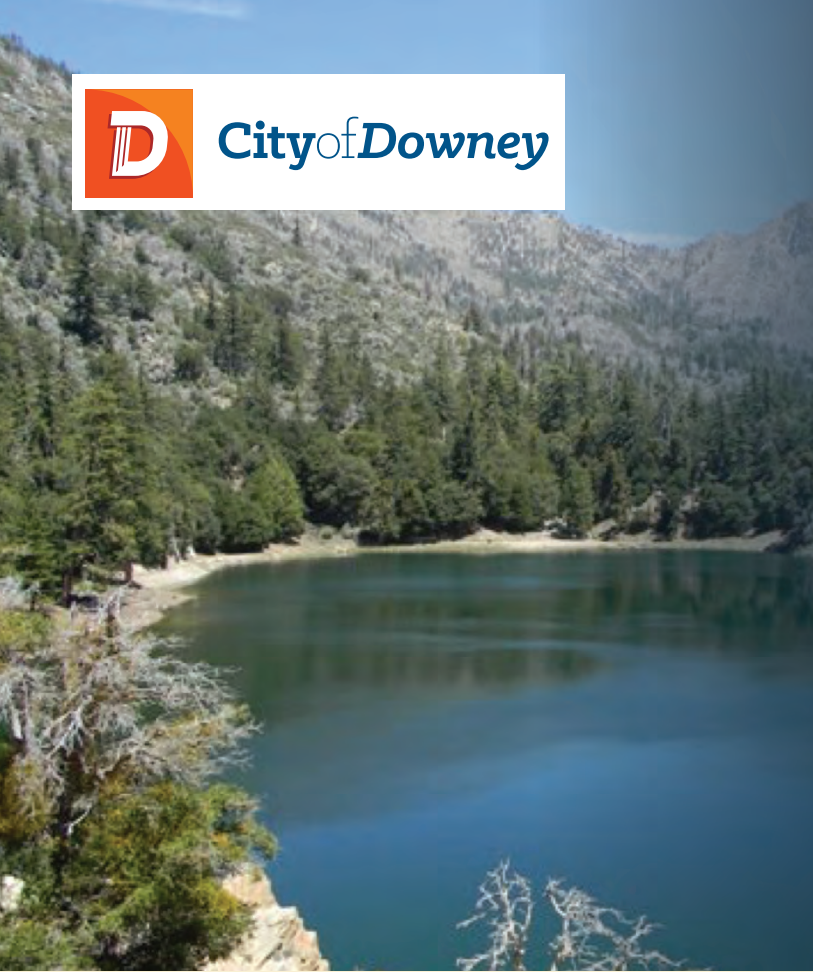
State Water Resources Control Board
http://www.waterboards.ca.gov/drinking_water/
(818) 551-2004

City of Downey Water Conservation & Restrictions: http://www.downeyca.org/gov/pw/utilities/water_conservation.asp

Committed to Providing Quality Water

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2016. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. As new challenges to drinking water quality emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. This report summarizes information regarding water sources used, any detected contaminants, compliance, and educational information.

During 2016, as in years past, your tap water met all USEPA and state water health standards. There were no violations of a contaminant level or of any other water quality standard during 2016. We are always available to assist you with any questions or concerns you may have about your water by calling us at 562-904-7202



Our Water and Distribution System



The City's water supply and distribution system is operated by the City of Downey Department of Public Works. Our water supply and distribution system is composed of 20 groundwater wells located throughout the City and approximately 276 miles of distribution pipeline with diameters ranging from 4 to 24 inches. Our groundwater wells provide one hundred percent of our domestic water supply. As a result, City of Downey residents are able to enjoy one of the least expensive water rates in Southern California.


In 2016, the City of Downey water system delivered more than 4.4 billion gallons of potable (i.e. drinking) water to approximately 112,800 residential, commercial, and industrial customers via 23,300 metered connections.



Recycled Water Use in Downey

In an effort to conserve water, the City utilizes recycled water to offset potable water needs by as much as 5.4% of the City's overall water demand through the application of recycled water for landscaping irrigation, dual-plumbed buildings, lakes, and ponds at 95 sites located throughout the City.

Trained water distribution system operators, operate, inspect, repair, and replace these critical components of our drinking water infrastructure.



276
miles of potable water main



5,500
Isolation Valves



23,300
Water Meters



1,450
Fire Hydrants

Your Water Supply

Downey's groundwater is pumped from the Central Groundwater Basin. The Central Basin is a series of large natural aquifers below the ground that stretch from Los Angeles to Orange County.

The Central Groundwater Basin receives natural inflows from the conservation of rainfall and snow melt, artificial inflows from imported and recycled water, as well as groundwater underflow from adjacent basins. As surface water slowly percolates through the ground to the aquifers, the ground acts as a natural filter to clean the water.

The City of Downey conveniently overlies the Central Basin. Groundwater from the Central Basin is pumped from 20 wells located within the City's boundaries and provides the City with its principal source of potable water.

Our Utilities Division conducts regular water quality monitoring to ensure that the water served meets USEPA and Sate Water Resource Control Board (SWRCB) drinking water standards. We are committed to maintaining the reliability of our water system and the quality of the water delivered to you.

How Can I Save Water?

The City of Downey encourages everyone to look closely at their water usage habits and for ways to use less water. Water conservation efforts help maintain low water rates for our residents and supports the long-term sustainability of our water supply.



Find and Fix Leaks in Your Home

Locate your water meter and check the leak indicator. Make sure no water is being used inside or outside your home at the moment. Check to see if the leak indicator is moving or spinning. A moving leak indicator shows that water is either being used or wasted. Leaks should be repaired within 48 hours.

Who do I call if my home does not have a private shut-off valve?

City water meter valves are to be operated by city personnel only. Please call 562-904-7202 weekdays between the hours of 7:00 am - 4:00 pm should you need the city valve shut-off for a repair.



Low Flow Fixtures

Installing low-flow faucet aerators that use a maximum of 1.5 gallons per minute can reduce a sink's water used by 30 % or more. Remember to clean or replace aerator screen and parts to remove hard water build up from faucets and showerheads.



Prevent Runoff and Overwatering

Fix broken sprinklers, make sure there is no runoff, and periodically check settings. Limit watering to a maximum of 6 minutes per sprinkler station. If you do not have sprinklers, a spray nozzle with positive shutoff nozzle is allowed.

Use Drought Tolerant Plants in Your Garden

Drought tolerant landscaping can save you 40-60 gallons of water annually for every square foot of traditional grass lawn replaced.



Remember every little thing you do to save water will make a huge difference for us all.

Understand Your Designated Watering Days

CITY OF DOWNEY OUTDOOR WATER SCHEDULE

FALL/WINTER: October 1 - April 30	SPRING/SUMMER: May 1 - September 30
No more than 2 days per week	No more than 3 days per week
ODD Numbered Addresses: (Ending in 1, 3, 5, 7, 9) Mondays, Wednesdays and/or Fridays	
EVEN Numbered Addresses: (Ending in 0, 2, 4, 6, 8) Tuesday, Thursday, and/or Saturdays	

NO WATERING BETWEEN 8AM AND 7PM

*Penalties up to \$500 per day for noncompliance may be enforced



Downey's drinking water comes from local, deep groundwater wells that supply our service area shown on the map.



Prevent Pollution

Polluted runoff flows to storm drains directly into our rivers, bays, beaches, and the ocean. All of which pollute our beaches and harm fish and wildlife. As a community it is important to prevent chemicals, automobile fluid, and trash from entering our storm drains.

Source Water Assessment

An assessment of the City's drinking water sources was completed in 2003 by the State Department of Drinking Water. The sources are considered most vulnerable to the following activities: automobile gas stations, dry cleaners, injection wells, dry wells, sumps, metal plating, finishing, fabricating, fleet truck, bus terminals, furniture repair, manufacturing, machine shops, and National Pollutant Discharge Elimination System (NPDES)/Waste Discharge Requirement permitted discharges.

A copy of the complete assessment is available by contacting the SWRCB, DDW at (818) 551-2004 or by calling the City of Downey Utilities Division at (562) 904-7202.

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

Microbial Contaminants such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminants such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic

wastewater discharges, oil and gas production, mining, or farming.

Pesticides and Herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic Chemical Contaminant including synthetic and volatile organic chemicals, which are

byproducts of industrial processes and petroleum production, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems.

Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

GLOSSARY OF TERMS AND ABBREVIATIONS

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. Secondary MCLs (SMCLs) are set to protect odor, taste, and appearance of drinking water.

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 the U.S. EPA.

Detection Limits for Purposes of Reporting (DLR): The DLR is a parameter that is set by regulation by each reportable analyte. It is not laboratory specific and it is independent of the analytical method used (in cases where several methods are approved). It is expected that a laboratory can achieve a Reporting Limit that is lower than or equal to the DLR set by the State. This is also known as the Minimum Reporting Level (MRL).

Primary Drinking Water Standard (PDWS):

MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

NA: Contaminant or property was not analyzed.

ND: Contaminant was not detected. The contaminant is less than the DLR.

n/a: Not applicable

Units of Measurement:

ppm= parts per million

ppb= parts per billion

pCi/L = picocuries per liter

µS/cm=microsiemens per centimeter

% = percent

Measurement Comparison

Parts per million (ppm) is 3 drops in 42 gallons (an average sized bathtub)

Parts per billion (ppb) is 1 drop in 14,000 gallons (an average sized swimming pool)

WATER QUALITY SAMPLE TESTING RESULTS

During the past year over 100 regulated contaminants were tested for in order to determine the presence of any biological, inorganic, volatile organic or synthetic organic, and radioactive contaminants. The following tables include only those contaminants that were detected in the water. Both federal and state regulations require us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included.

PRIMARY STANDARDS (Monitored for Health Concerns)

Substance (Unit)	MCL	PHG/ MCLG	Average	Range (Low-High)	Violation	Typical Source of Contaminant
Microbiological						
Total Coliform Bacteria (%) (state Total Coliform Rule)	5	(0)	0.08	0 - 1.0	NO	Naturally present in the environment
Radiologicals						
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND - 3.2	NO	Erosion of natural deposits
Uranium (pCi/L)	20	0.43	3.0	1.9 - 3.7	NO	Erosion of natural deposits
Volatile Organic Compounds						
Tetrachloroethylene (PCE) (ppb)	5	0.06	ND	ND - 3.7	NO	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Trichloroethylene (TCE) (ppb)	5	1.7	ND	ND - 1.4	NO	Discharge from metal degreasing sites and other factories
cis-1,2- Dichloro-ethylene (ppb)	6	100	ND	ND - 0.7	NO	Discharge from industrial chemical factories; major biodegradation byproduct of TCE & PCE groundwater contamination.
Inorganic Compounds						
Arsenic (ppb)	10	0.004	ND	ND - 2.4	NO	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	1	2	ND	ND - 0.12	NO	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	2	1	0.33	0.2 - 0.4	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N (ppm)	10	10	2.1	0.7 - 3.1	NO	Runoff and leaching from fertilizers use; leaching from septic tanks and sewage; erosion of natural deposits
Hexavalent Chromium (ppb)	10	0.02	ND	ND - 1.1	NO	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits

TAP WATER SAMPLES were collected for lead and copper analyses from sample sites throughout the community

Substance (Unit)	Action Level (AL)	PHG	90th Percentile	Sites Above AL/ Total Sites	Violation	Typical Source
Lead (ppb)	15	0.2	4.1	0 out of 50	NO	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	1.3	0.3	0.2	0 out of 50	NO	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

SECONDARY STANDARDS (Monitored for aesthetic qualities)

Substance (Unit)	SMCL	Average	Range (Low-High)	Violation	Typical Source
Chloride (ppm)	500	68	39 - 91	NO	Runoff and leaching from natural deposits
Copper (ppm)	1	ND	ND - 0.2	NO	Erosion of natural deposits; leaching from wood preservatives.
Specific Conductance (µS/cm)	1600	738	480 - 920	NO	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	107	69-150	NO	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1000	473	280 - 660	NO	Runoff/leaching from natural deposits

WATER CHARACTERISTICS (No MCL or MRDL but state or federal monitoring required)

Substance (Unit)	SMCL	Average	Range (Low-High)	Violation	Typical Source
Alkalinity (ppm)	n/a	165	100 - 230	NO	Naturally occurring soluble mineral.
Calcium (ppm)	n/a	74	41 - 110	NO	Abundant naturally occurring element
Magnesium (ppm)	n/a	16	8.5 - 23	NO	Abundant naturally occurring element
pH (units)	6.5 - 8.5	7.6	7.4 - 7.9	NO	Hydrogen ion concentration
Potassium (ppm)	n/a	4	3.1 - 4.6	NO	Runoff or leaching from natural deposits
Sodium (ppm)	n/a	54	37 - 70	NO	Erosion of natural deposits
Total Hardness (grains per gallon)	n/a	15	8.2 - 22	NO	"Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.

FEDERAL UNREGULATED CONTAMINANTS Monitoring Rule UCMR 3 Data

(Unregulated contaminant monitoring helps USEPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated)

Substance (Unit)	SMCL	PHG/ MCLG/AL	Average	Range (Low-High)	Violation	Typical Source of Contaminant
1, 4 Dioxane (ppb)	n/a	n/a	1.75	0.54 - 2.8	NA	Used in many products including paint strippers, dyes, greases, varnishes, and waxes; also found as an impurity antifreeze and aircraft deicing fluids and in some consumer products (deodorants, shampoos, and cosmetics).
Chlorate (ppb)	n/a	n/a	21.3	ND - 54	NA	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Chromium, Total (ppb)	50	100	0.7	0.43 - 1.2	NO	Discharge from steel and pulp mills and chrome plating; Erosion of natural deposits.
Molybdenum (ppb)	n/a	n/a	1.92	ND - 2.4	NA	Naturally present in the environment
Perfluoro-1-octanesulfonate (PFOS) (ppb)	n/a	n/a	0.01	ND - 0.05	NA	Surfactant or emulsifier; used in fire-fighting foam, circuit board etching acids, alkaline cleaners, floor polish, and as a pesticide active ingredient for insect bait traps.
Strontium (ppb)	n/a	n/a	524	410 - 620	NA	Naturally present in the environment
Vanadium (ppb)	n/a	n/a	2.65	2.3 - 3.4	NA	Naturally present in the environment

LEAD AND COPPER

Lead can cause serious health problems if present at elevated levels, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Lead can be released when your tap water comes in contact with pipes and plumbing fixtures containing lead. The City of Downey 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. 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 at <http://www.epa.gov/safewater/lead>

IMPORTANT HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The Environmental Protection Agency (EPA) and the Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Substances That Could Be in Water

Sources of drinking water (both tap water and bottled water) include groundwater wells, springs, rivers, lakes, streams, ponds, and reservoirs. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Federal and State Water Quality Regulations

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. Additional information on bottled water is available on the California Department of Public Health website (<http://www.cdph.ca.gov/programs/Pages/fdbBVW.aspx>).

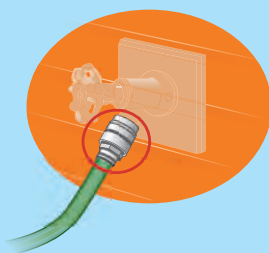
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (800) 426-4791.



Protecting Our Water from Cross Connections:

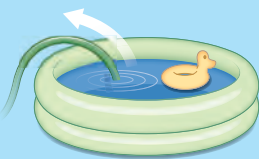
Did you know? Common hazards in and around your house can contaminate your drinking water? The City's Public Works Department Utilities Division, through its Backflow Prevention Program, goes to great lengths to protect the water entering your home. However, we need your help to protect the water on your home's property.

Here are some ways you can create a cross-connection at home. Protect your home from cross connections by avoiding the following:

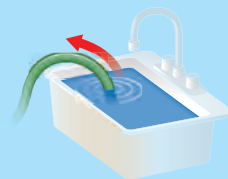


Avoid putting the garden hose into swimming pools or buckets to fill. Water can flow back into the hose and into your home.

Protect your home with air vacuum breakers. Over half of the Nation's cross-connections involve unprotected garden hoses. Check to see if you have air vacuum breakers installed on each of your hose bibs. They prevent water from getting back into the drinking water system. These sample devices are inexpensive and can be purchased from your local hardware store. They are easy to install, you just simply screw them onto the hose bib.



Avoid connecting your garden hose to a plant fertilizer or bug spray unit. This can cause harmful chemicals to flow back into your home.



Avoid putting the garden hose down the drain to flush debris when it's backed up. This can cause a serious health hazard. Contaminated water can be drawn back into your home's water supply.