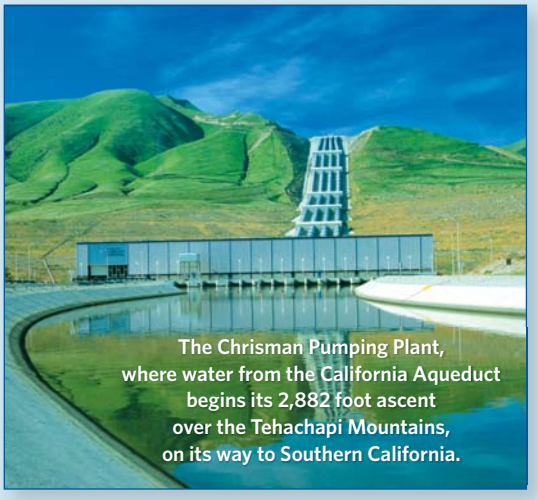
City of Norco
2018 Water Quality Report

This report reflects
water quality testing
conducted during 2017

The Quality of Your Water is Our Primary Concern

Sources of Supply

THE CITY OF NORCO'S water system was built with maximum flexibility. The City has 4 active wells, located in southwesterly portions of Norco, and 3 purchased water connections. This means that under emergency, drought or other unusual conditions, the source of water to any area may change. In order to ensure that the City continues to provide high-quality drinking water, the City of Norco purchases treated groundwater produced by the Arlington Desalter Facility and Chino Desalter Authority. In addition, Norco also purchases a small amount of water from the City of Corona. During 2017, your drinking water was approximately 84.1% purchased treated water and 15.9% groundwater from Norco's Temescal groundwater basin wells.



The Chrisman Pumping Plant, where water from the California Aqueduct begins its 2,882 foot ascent over the Tehachapi Mountains, on its way to Southern California.

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.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.
- **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.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts 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 State Water Resources Control Board – Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

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 Norco 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 or on the web at: www.epa.gov/safewater/lead.

In 2017, no school requested sampling for lead.

Important Federal and State Water Quality Regulations

Drinking Water Issues that Could Affect Your Health

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.

The City of Norco has natural occurring fluoride levels in some of its groundwater wells that exceed the State MCL of 2.0 mg/L. In 1998, the City held public hearings and obtained a variance from compliance with the State fluoride standard. The variance established the City's standard at 3.0 mg/L, or three fourths of the Federal MCL of 4.0 mg/L. To ensure compliance with the variance standard, the City routinely collects fluoride samples at each active groundwater source and at a designated sample location in the distribution system. The established compliance point represents the fluoride concentration in the water served to our City customers. The results for sampling completed during 2017 are provided in the enclosed table. During 2017, the highest running annual average was 1.77 mg/L.

Some people who drink water containing fluoride in excess of the Federal MCL of 4.0 mg/L over many years may contract bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the State MCL of 2.0 mg/L may result in mottled teeth.

There are many places to go for additional information about the fluoridation of drinking water.

U.S. Centers for Disease Control and Prevention:
(800) 232-4636 ♦ www.cdc.gov/fluoridation/

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

Nitrates

NITRATE in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin.

Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies.

If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. Large fluctuations of nitrate levels are not common in Norco; the City is consistently below the MCL.

Arsenic

WHILE YOUR DRINKING WATER meets the federal and state standard of 0.010 mg/L for arsenic, the City's groundwater wells contain arsenic above the MCL.

The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The City operates a treatment facility designed to remove arsenic from local groundwater as part of the treatment process. Our goal is to provide water to Norco residents with no detection of arsenic.

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, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

2017 City of Norco Water Quality Result Summary

PRIMARY STANDARDS: Mandatory Health Related Standards

	Unit of Measure	MCL [MRDL] (AL)	PHG [MRDLG] (MCLG)	NORCO WATER SOURCES (% COMPOSITION) Well Water* 15.9%	Arlington Desalter 64.5%	Chino Desalter 19.4%	Corona 0.2%	NORCO Systemwide 100%		Sources of Contamination
				RANGE	RANGE	RANGE	RANGE	RANGE	AVERAGE	
Microbiological										
Total Coliform	Highest # of positives in one month	1 positive monthly sample	(0)	NA	0	0	0	0	Highest = 0	Naturally occurring
Regulated Organic										
Total Trihalomethanes (TTHMs)**	µg/L	80	NS	NA	<0.41 – 7.8	ND	ND – 38	ND – 20.2	23.3	Byproduct of disinfection treatment
Haloacetic Acids (HAA5)**	µg/L	60	NS	NA	ND – 2.2	ND	ND – 13	ND – 6.3	4.6	Byproduct of disinfection treatment
Chlorine (CL2)	Mg/L	[4.0 as CL2]	[4 as CL2]	NA	0.85 – 1.85	0.70 – 1.74	0.19 – 1.65	0.21 – 1.89	1.3	Drinking water disinfectant
Regulated Inorganic										
Nitrate (as N)**	Mg/L	10	10	ND – 4.3	3.7 – 5.3	4.0 – 4.4	ND – 6.9	ND – 5.2	1.5	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Fluoride**	Mg/L	2.0	1	0.35 – 3.1	ND – 0.13	ND – 0.2	ND – 0.76	ND – 3.1	1.77	Naturally occurring
Arsenic**	µg/L	10	0.004	ND – 15	ND	ND	ND – 2.7	ND – 16	0.64	Erosion of natural deposits
Radiological										
Gross Alpha Particle Activity	pCi/L	15	(0)	ND – 0.6	6.63	ND	ND	2.4 – 4.0	6.2	Erosion of natural deposits
Uranium	pCi/L	20	0.43	3.4 – 3.8	3.0	ND	ND	0.89 – 3.4	3.3	Erosion of natural deposits

LEAD AND COPPER DISTRIBUTION SYSTEM MONITORING (2015 Results)

	Unit of Measure	AL	PHG	Number of Samples Collected	90th Percentile Level	Number of Sites Exceeding AL	Sources of Contamination
Lead**	µg/L	15	0.2	50	ND	1	Internal corrosion of household water plumbing system; erosion of natural deposits
Copper**	Mg/L	1.3	0.3	50	0.2	0	

**Additional information available inside this report.

SECONDARY STANDARDS: Aesthetic Standards

	Unit of Measure	Secondary MCL	PHG	NORCO WATER SOURCES Well Water*	Arlington Desalter	Chino Desalter	Corona	NORCO Systemwide		Sources of Contamination
				RANGE	RANGE	RANGE	RANGE	RANGE	AVERAGE	
Turbidity	NTU	5	NS	0.1 – 0.5	<0.03 – 1.1	ND	ND – 3.3	ND – 0.5	0.2	Soil runoff
Alkalinity	Mg/L	NS	NS	190 – 200	77 – 99	97 – 140	23 – 120	ND – 190	106	Naturally occurring
Bicarbonate	Mg/L	NS	NS	230 – 240	77 – 120	ND	28 – 140	ND – 230	117	Naturally occurring
Specific Conductance	µs/cm	1600	NS	1000 – 1200	252 – 599	350 – 520	179 – 1090	ND – 1200	178	Naturally occurring
Aluminum	µg/L	200	600	ND	ND	ND	ND – 870	ND	3.2	Naturally occurring
Odor Threshold Units	Units	3	NS	ND – 1.0	ND	ND	1 – 2	1 – 5	0.2	Naturally occurring
Chloride	Mg/L	500	NS	170 – 220	39 – 45	9.4 – 77	26 – 100	ND – 220	66.3	Naturally occurring
Sulfate	Mg/L	500	NS	76 – 88	42 – 49	8.6 – 12	3.0 – 250	ND – 76	52	Naturally occurring
Total Dissolved Solids (TDS)	Mg/L	1000	NS	570 – 680	190 – 280	190 – 360	110 – 690	ND – 680	311.6	Naturally occurring
pH Units	Units	NS	NS	7.1 – 7.2	7 – 8.7	8.2 – 8.3	6.9 – 9.4	ND – 7.1	7.9	Naturally occurring
Hardness as ($CaCO_3$)	Mg/L	NS	NS	ND – 200	120 – 140	120 – 180	13 – 320	ND – 200	142.6	Naturally occurring
Sodium	Mg/L	NS	NS	140 – 170	41 – 44	27 – 28	30 – 100	ND – 170	60	Naturally occurring
Calcium	Mg/L	NS	NS	61 – 70	31 – 34	39 – 61	3.6 – 83	ND – 70	37.7	Naturally occurring
Potassium	Mg/L	NS	NS	2.4 – 2.7	<0.35 – 1.2	1.5 – 1.7	ND – 5	ND – 2.7	1.1	Naturally occurring
Magnesium	Mg/L	NS	NS	7.1 – 12.0	ND – 11.8	4.9 – 7.0	0.83 – 28	ND – 7.1	11.4	Naturally occurring
Manganese	µg/L	50	NS	ND – 230	ND	ND	ND	ND – 170	12.7	Naturally occurring
Additional Monitoring										
Boron	µg/L	NL = 1000	NL = 1000	1800 – 1900	ND	ND	0.13 – 0.43	ND – 1800	280.7	Petroleum by-product
Vanadium	µg/L	NL = 50	NL = 50	ND – 3.3	5.5 – 6.5	ND – 1.5	ND – 3.1	ND	1.6	Petroleum by-product

*Well Water Results from Samples Taken 2017

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 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:** 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.
- **Variances and Exemptions:** State board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

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 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.

CCR Chart Abbreviations

< = less than
SI = saturation index
pCi/L = picoCuries per liter
ND = constituent not detected at the reporting limit
NA = constituent not analyzed
NTU = nephelometric turbidity units
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter or parts per million *(equivalent to 1 drop in 42 gallons)*
µg/L = micrograms per liter or parts per billion *(equivalent to 1 drop in 42,000 gallons)*
ng/L = nanograms per liter or parts per trillion *(equivalent to 1 drop in 42,000,000 gallons)*

Source Water Assessments

An assessment of the City of Norco drinking water sources was completed in December 2001 to evaluate which local activities may cause potential contamination to our water supply. The report identified the following potential sources: animal feeding operations, agricultural drainage, grazing, high-density septic systems, and sewer collection systems. A copy of the complete assessment summary is available at the Norco City Hall.

Save Money & Water: Learn to Stop Leaks in Your Home

NATIONWIDE, more than 1 trillion gallons of water are lost annually due to household leaks. That's equal to the annual water use of more than 11 million homes. The average household can waste more than 10,000 gallons each year due to correctable leaks. That's enough to wash 270 loads of laundry!

Ten percent of homes have leaks that waste 90 gallons or more per day! Common sources include toilets, faucets, showerheads, and landscape irrigation. But you should also consider less obvious sources of leaks: water heaters, ice makers, dishwashers, and filtration systems. Many of these are easily correctable, and fixing them can save about 10 percent on the average water bill.

Be sure to check your toilet for leaks at least once a year. Put food coloring in the tank. If it seeps into the bowl without flushing, there's a leak. And if your toilet flapper doesn't close properly after flushing, replace it. Remember, one drip a second adds up to five gallons lost per day! So regularly check your faucets and showerheads, as well as all hoses and connectors.

Many household leaks can be solved with simple tools and a little education — and fortunately, Do-It-Yourselfers have access to multiple resources. But even if you must pay for repairs, you will still save money in the long run. For more information on water conservation, visit www.bewaterwise.com.

For Your Information . . .

Disinfection: Water provided by the City contains chlorine used for disinfection and chloramines used by Corona, also for disinfection purposes. Customers on kidney dialysis should consult their physicians.

Fish or Amphibians: If you have fish or amphibians, make sure to remove any chloramines and chlorine before changing or adding water to the tanks. Remember, allowing drinking water to stand will not remove chloramines. Consult your local aquarium store for products that will remove the disinfectants.

Hot Water Heaters: Many odor complaints may be traced to the home's hot water heater. Remember to follow manufacturer's instructions and flush hot water heaters regularly. This will flush out any sediments that may have accumulated, provide good water turnover to maximize water quality, and help keep your unit in good working order.

Point of Use or Home Water Filtration Units: Be vigilant in changing or cleaning any filters or media on your home units. Always follow the manufacturers instructions. Remember, the water is only as clean as the filter allows. Improperly maintained filters can deliver very poor quality water.

How to Read Your Water Meter

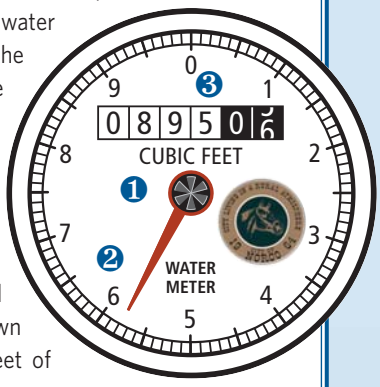
Your water meter is usually located between the sidewalk and curb under a cement cover. Remove the cover by inserting a screwdriver in the hole in the lid and then carefully lift the cover. The meter reads straight across, like the odometer on your car. Read only the white numbers (0895).

If you are trying to determine if you have a leak, turn off all the water in your home, both indoor and outdoor faucets, and then check the red or black triangular dial for any movement of the low-flow indicator. If there is movement, that indicates a leak between the meter and your plumbing system.

❶ **Low-Flow Indicator** — The low flow indicator will spin if any water is flowing through the meter.

❷ **Sweep Hand** — Each full revolution of the sweep hand indicates that one cubic foot of water (7.48 gallons) has passed through the meter. The markings at the outer edge of the dial indicate tenths and hundredths of one cubic foot.

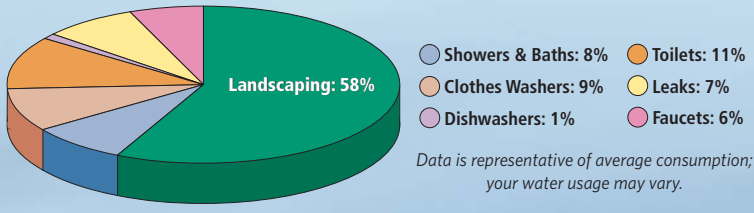
❸ **Meter Register** — The meter register is a lot like the odometer on your car. The numbers keep a running total of all the water that has passed through the meter. The register shown here indicates that 89,505 cubic feet of water has passed through this meter.



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.

Your City of Norco 2018 Water Quality Report

Since 1990, California water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers calendar year 2017 water quality testing**. 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.

This report has been prepared in compliance with regulations called for in the 1996 reauthorization of the Safe Drinking Water Act (SDWA). The reauthorization charged the United States Environmental Protection Agency (USEPA) with updating and strengthening the tap water regulatory program.

USEPA and the State Water Resources Control Board, Division of Drinking Water (DDW) are the agencies responsible for establishing drinking water quality standards. To ensure that your tap water is safe to drink, USEPA and DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. The federal Food and Drug Administration (FDA) also sets regulations for bottled water.

The City of Norco vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies. In accordance with the SDWA, the City monitors over 100 constituents in your water supply. This report includes only the constituents actually detected in the water.

City of Norco
Public Works Department
2870 Clark Avenue
Norco, California 92860

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Questions About Your Water? Contact Us for Answers.

The City of Norco vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies.

For information about this report, or your water quality in general, please contact Terry Piorkowski, Public Works Superintendent, at (951) 270-5602, or Utility Billing at (951) 270-5654.

The City Council meets on the first and third Wednesdays of the month at 7 p.m. The meetings are held in the Council Chambers at 2820 Clark Avenue, Norco, California 92860. Please feel free to participate in these meetings.

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

Want Additional Information?

There's a wealth of information on the internet about Drinking Water Quality and water issues in general. A good place to begin your own research is the City of Norco website: **www.ci.norco.ca.us**.

In addition to extensive information about your local water and the support and services we offer, you'll find links for many other local, statewide, and national resources. There's a wealth of information on the internet about Drinking Water Quality and water issues in general. Some good sites — both local and national — to begin your own research are:

U.S. Environmental Protection Agency: www.epa.gov/safewater

California Department of Water Resources: www.water.ca.gov

Metropolitan Water District of Southern California: www.mwdh2o.com

Drought and Water Conservation Tips:
www.BeWaterWise.com • www.SaveOurWater.com

SPECIAL NOTICE TO ALL EMPLOYERS, LANDLORDS, AND SCHOOLS: State Law (Section 116465(G) (3) of the California Health and Safety Code) requires that you provide copies of this notice to all of your employees, tenants, or students (and parents of minor students) within ten days of you receiving this notice. Generally, you may fulfill this responsibility by posting this notice at each site where drinking water is dispensed and/or mailing a copy of the notice. Failure to give notice as required could make you civilly liable in an amount not to exceed $1,000 for each day of delay in notification.

This report contains very important information about your drinking water information. Translate it or talk to someone who understands well (951) 270-5602.

Este informe contiene information muy importante sobre su agua de beber. Traduzcalo o hable con alguien que lo entienda bien (951) 270-5654.