



**CITY OF  
NORCO**  
HORSETOWN USA

# 2023 WATER QUALITY REPORT

*Data Collected in 2022*



# 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 3 active wells, located in southwesterly portions of Norco, and 7 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 Reverse Osmosis (RO) 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 and the City of Riverside. During 2022, your drinking water was approximately 77% purchased treated water and 23% groundwater from Norco's Chino subbasin groundwater wells.



## 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, the United States Environmental Protection Agency (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 plumbing materials used in your household.

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](http://www.epa.gov/safewater/lead).

In 2019, the City assisted the Corona-Norco School District with completing Lead and Copper sampling in seven schools. Please contact your local school for information about those results.



# We Comply with All State & Federal Water Quality Regulations

## Drinking Water Fluoridation

**F**LUORIDE 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 Maximum Contaminant Level (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 2022 are provided in the enclosed table. During 2022, the highest running annual average was 0.4 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/](http://www.cdc.gov/fluoridation/)

### State Water Resources Control Board, Division of Drinking Water:

[www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.html](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html)



## Nitrates

**N**ITRATE 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.

## Immunocompromised People

**S**OME 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. If you have any questions, please seek advice from your health care provider.



## Arsenic

**W**HILE 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.

2022 City of Norco Water Quality Result Summary

PRIMARY STANDARDS: Mandatory Health Related Standards

Unit of Measure				NORCO WATER SOURCES (% COMPOSITION)						Sources of Contamination
				Well Water 22.9%	Arlington Desalter 61.0%	Chino Desalter 16.0%	City of Riverside 0.1%	NORCO Systemwide 100%		
				RANGE	RANGE	RANGE	RANGE	RANGE	AVERAGE	
Microbiological										
Total Coliform	Highest # of positives in one month	No more than one (1) per month	(0)	NA	0	0	0	0	Highest = 0	Naturally occurring
Regulated Organic										
Total Trihalomethanes (TTHMs)	µg/L	80	NS	1.0 – 8.3	NA	NA	NA	1.0 – 8.3	3.3	Byproduct of disinfection treatment
Haloacetic Acids (HAA5)	µg/L	60	NS	ND – 1.5	NA	NA	NA	ND – 1.5	0.1	Byproduct of disinfection treatment
Chlorine (CL2)	Mg/L	[4.0 as CL2]	[4 as CL2]	0.9 – 2.2	0.41 – 1.7	0.41 – 1.75	0.21 – 0.88	0.21 – 2.2	1.6	Drinking water disinfectant
Regulated Inorganic										
Nitrate (as N)*	Mg/L	10	10	ND – 5.9	3.8 – 6.0	4.1 – 6.0	5.0 – 7.5	ND – 7.5	3.8	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Fluoride*	Mg/L	2.0	1	ND – 3.2	ND – 0.16	ND – 0.16	0.44 – 0.52	ND – 3.2	0.03	Naturally occurring
Arsenic*	µg/L	10	0.004	ND – 6.6	ND – 2.6	ND – 2.6	ND – 4.4	ND – 6.6	0.04	Erosion of natural deposits
Radiological										
Gross Alpha Particle Activity	pCi/L	15	(0)	ND – 6.3	ND – 4.4	NA	ND – 10	ND – 10	1.5	Erosion of natural deposits
Uranium	pCi/L	20	0.43	ND – 6.4	ND – 2.6	NA	4.3 – 8.6	ND – 8.6	2.1	Erosion of natural deposits

Lead and Copper Distribution System Monitoring (2021 Results)

	Unit of Measure	AL	PHG	Number of Samples Collected	90 <sup>th</sup> Percentile Level	Number of Sites Exceeding AL	Sources of Contamination
Lead*	µg/L	15	0.2	44	ND	1	Internal corrosion of household water plumbing system; erosion of natural deposits
Copper	Mg/L	1.3	0.3	44	0.21	0	
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 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 at <a href="http://www.epa.gov/safewater/lead">www.epa.gov/safewater/lead</a> .	

\*Additional information available inside this report.

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

ND = constituent not detected at the reporting limit  
NL = notification level    RL = response level  
< = less than    SI = saturation index    pCi/L = picoCuries per liter  
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.



## SECONDARY STANDARDS: Aesthetic Standards

Unit of Measure	Secondary MCL	PHG	NORCO WATER SOURCES							Sources of Contamination
			Well Water	Arlington Desalter	Chino Desalter	City of Riverside	NORCO Systemwide			
			RANGE	RANGE	RANGE	RANGE	RANGE	AVERAGE		
Turbidity	NTU	5	NS	ND – 0.68	ND – 0.7	ND – 0.65	ND – 1.5	ND – 1.5	0.04	Soil runoff
Alkalinity	Mg/L	NS	NS	190 – 210	72 – 160	81 – 160	150 – 180	72 – 210	109.2	Naturally occurring
Bicarbonate	Mg/L	NS	NS	110 – 260	NA	NA	NA	110 – 260	43.1	Naturally occurring
Specific Conductance	µmho/cm	1,600	NS	410 – 1,200	320 – 440	320 – 380	500 – 610	320 – 1,200	527.6	Naturally occurring
Aluminum	µg/L	200	600	ND	NA	NA	NA	ND	0	Naturally occurring
Odor Threshold Units	TON	3	NS	1 – 3	NA	NA	ND – 1	ND – 3	0.3	Naturally occurring
Chloride	Mg/L	500	NS	41 – 220	12 – 62	12 – 62	32 – 39	12 – 220	81.9	Naturally occurring
Sulfate	Mg/L	500	NS	36 – 95	7.3 – 54	7.3 – 14	60 – 72	7.3 – 95	42.1	Naturally occurring
Total Dissolved Solids (TDS)	Mg/L	1,000	NS	240 – 810	170 – 280	220 – 280	210 – 390	170 – 810	321.4	Naturally occurring
pH Units	Units	NS	NS	7.7 – 8.3	7.4 – 8.6	7.9 – 8.0	7.2 – 9.9	7.2 – 9.9	8.1	Naturally occurring
Hardness as (CaCO <sub>3</sub> )	Mg/L	NS	NS	54 – 290	110 – 150	120 – 150	180 – 220	54 – 290	122.4	Naturally occurring
Sodium	Mg/L	NS	NS	42 – 230	22 – 44	22 – 25	41 – 45	22 – 230	65.3	Naturally occurring
Calcium	Mg/L	NS	NS	19 – 89	28 – 45	37 – 45	59 – 71	19 – 89	34.9	Naturally occurring
Potassium	Mg/L	NS	NS	ND – 3.2	1 – 1.8	1.1 – 1.8	2.8 – 3.4	ND – 3.4	1.4	Naturally occurring
Iron	Mg/L	0.3	NS	ND – 360	NA	NA	NA	ND – 360	5.6	Naturally occurring
Magnesium	Mg/L	NS	NS	1.5 – 16	5.5 – 13	5.5 – 7.9	7.9 – 10	1.5 – 16	8.3	Naturally occurring
Manganese	µg/L	50	NS	ND	NA	NA	NA	ND	0	Naturally occurring

## Unregulated Contaminants with No MCLs

Unit of Measure	Regulatory Action Level	PHG	NORCO WATER SOURCES							Health Effects
			Well Water	Arlington Desalter	Chino Desalter	City of Riverside	NORCO Systemwide			
			RANGE	RANGE	RANGE	RANGE	RANGE	AVERAGE		
Additional Monitoring										
Perfluorooctanesulfonate Acid (PFOS)	ng/L	NL = 6.5	NA	6.9 – 19	NA	ND	ND – 4.9	ND – 19	0.2	Perfluorooctanesulfonate Acid exposures resulted in immune suppression, specifically a decrease in antibody response to an exogenous antigen challenge.
Perfluorooctanoic Acid (PFOA)	ng/L	NL = 5.1	NA	4.2 – 13	NA	NA	ND – 4.6	ND – 13	0.1	Perfluorooctanoic acid exposures resulted in increased liver weight in laboratory animals.
Perfluorobutanesulfonic Acid (PFBS)	ng/L	NL = 500 RL = 5,000	NA	ND – 8.9	NA	NA	ND – 3.0	ND – 8.9	0.07	Perfluorobutanesulfonic acid exposures resulted in decreased thyroid hormone in pregnant female mice.
Perfluorohexane Sulfonic Acid (PFHxS)	ng/L	NL = 3 RL = 20	NA	4.5 – 13	ND – 3.0	NA	ND – 3.0	ND – 13	0.1	Perfluorohexane sulfonic acid exposures resulted in decreased thyroid hormone levels and changes in liver weight and function.
Perfluorohexanoic Acid (PFHxA)	ng/L	NA	NA	ND – 6.4	NA	NA	4.2 – 6.5	ND – 6.5	0.04	Perfluorohexanoic acid exposure resulted in reduced red blood cell count and effects kidneys
Boron	µg/L	NL = 1,000	NL = 1,000	1,600 – 3,200	NA	NA	NA	1,600 – 3,200	792.9	
Vanadium	µg/L	NL = 50	NL = 50	ND – 7.0	ND – 6.9	NA	NA	ND – 7.0	3.2	

## Every Drop is Golden . . .

*“And it never failed that during the dry years the people forgot about the rich years, and during the wet years they lost all memory of the dry years. It was always that way.”*

~John Steinbeck, 1952

Torrential rains. A Sierra snowpack over 200% of normal. Blizzards in Southern California! For those of us weary of drought, this Winter’s storms were a welcome relief. But gratifying as the season proved, it does not spell the end of drought. For even with full reservoirs and slowly replenishing aquifers, the cyclical nature of California’s water fortunes,

coupled with our arid climate, guarantees a return to drought in years to come.

Much has changed since Steinbeck’s day. Water conservation has become a way of life. No longer seen as a temporary patch for times of drought, conservation’s role as protector of our shared waters is engrained in our behavior. We recognize it doesn’t mean we must use less water, only that we not waste the water we have. By saving water today, we ensure we’ll have it tomorrow — for every drop is golden!



# Your City of Norco 2022 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 2022 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  
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## Questions About Your Water? Contact Us for Answers.

The City of Norco diligently 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 Derek Lacombe, Public Works Superintendent, at (951) 270-5605, 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](http://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](http://www.epa.gov/safewater)

**California Department of Water Resources:** [www.water.ca.gov](http://www.water.ca.gov)

**Metropolitan Water District of So. California:** [www.mwdh2o.com](http://www.mwdh2o.com)

**Drought and Water Conservation Tips:**

[www.BeWaterWise.com](http://www.BeWaterWise.com) ♦ [www.SaveOurWater.com](http://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 important information about your drinking water.  
Translate it, or speak with someone who understands it.  
Or you may call City of Norco Customer Service at (951) 270-5654.*

*Este documento contiene información importante acerca de su agua.  
Tradúzcalo o hable con una persona que lo entienda. También Ud. puede llamar al  
departamento de Servicio al Cliente de la ciudad de Norco al (951) 270-5654.*