



## **City of Norco 2012 Consumer Confidence Report For Calendar Year 2011**

### **Message from the Director**

We are pleased to present our annual Consumer Confidence Report for calendar year 2011. Included in this report are details about your drinking water quality, where it comes from and how it compares to State standards. The City of Norco water customers enjoy high-quality water that meets or exceeds all state and federal standards. This past year, we provided 2.71 billion gallons of drinking water to Norco residents and businesses. We are committed to providing our residents a high quality drinking water; this brochure provides a snapshot of last years water quality.

In order to ensure that we continue to provide high-quality drinking water, this past year we purchased 373.8 million gallons of treated RO (reverse osmosis) water from the Chino Desalter Authority and 1.3 billion gallons of RO water from the Arlington Desalter Facility. This accounts for 62 percent of the City's annual water demands.

The City of Norco Department of Public Works is responsible for the operation, maintenance, production and distribution of water to residents located within our City limits. The water delivered to our distribution system is monitored constantly to ensure that a sufficient volume of safe drinking water is always available to meet the needs of the community. The City chlorinates (disinfects) all well water and operates an iron, manganese and arsenic treatment facility. The City of Norco produces 31 percent of its water from groundwater wells in the Temescal Groundwater Basin and the Chino Basin north of the Santa Ana River. Treated water is also purchased from the Arlington Desalter, Chino Desalter Authority and Western Municipal Water District.

The personnel that operate, monitor, and maintain the City's water system from the source to your water meter are all certified by the State of California in the safe and proper methods and procedures required to safeguard the system from contamination. All water analysis work is performed by an independent state-certified laboratory, and test results are sent to the City as well as the State of California Department of Public Health.

### **Bottom Line – Your Water Meets or Exceeds All EPA and State Drinking Water Standards**

Last year, we conducted more than 2,000 tests for over 80 contaminants. The detected contaminants are summarized in the enclosed table. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently, therefore, some of our data, though representative is more than one year old. 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 City.

### **The City of Norco Has Detected Arsenic in our Drinking Water**

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 arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer. 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.

# 2011 CITY OF NORCO WATER QUALITY RESULT SUMMARY

## PRIMARY STANDARDS: Mandatory Health Related Standards

UNIT OF MEASURE	MCL (MRDL) (AL)	PHG (MRDL) (MCLG)	NORCO WATER SOURCES (% COMPOSITION)						NORCO SYSTEMWIDE AVERAGE		SOURCES OF CONTAMINATION
			***WELL WATER		ARLINGTON DESALTER		CHINO DESALTER		W.M.W.D. MILLS		
			RANGE	31.0%	RANGE	48.4%	RANGE	13.6%	RANGE	6.8%	
<b>MICROBIOLOGICAL</b>											
Total Coliform	Highest # of positives in one Month	(0)	NA	NA	NA	NA	NA	0 - 1	1	Naturally occurring	
<b>REGULATED ORGANIC</b>											
Total Trihalomethanes (TTHMs)	Ug/l	NS	NA	3.4 - 26	9.3 - 15	ND - 17	ND - 64.2	14.1	Byproduct of disinfection treatment		
Halocetic Acids (HAA5)	Ug/l	NS	NA	<5	9.8 - 11.0	ND - 7.2	ND - 11.9	2.2	Byproduct of disinfection treatment		
Chlorine (CL2)	Mg/l	[4 as Cl2]	NA	0.7 - 1.2	0.9 - 1.3	0.5 - 1.5	0.2 - 2.0	0.86	Drinking water disinfectant		
<b>REGULATED INORGANIC</b>											
Nitrate (as NO3)	Mg/l	45	ND - 91*	19 - 28	11 - 25	ND - 31	ND - 72*	10.6	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits		
Fluoride	Mg/l	2.0	ND - 3.2**	ND - 0.1	ND - 0.2	ND - 0.9	ND - 3.3**	0.8	Naturally occurring		
Aluminum	Mg/l	1	ND - 0.052	ND	ND	ND	ND - 0.052	ND	Erosion of natural deposits		
Barium	Mg/l	1	ND - 0.1	ND	ND	ND	NA	ND	Rocket fuel		
Benzene	Ug/l	0.15	ND - 1	ND	ND	ND	ND - 1	ND	Plastics, fuel tanks, landfills		
Arsenic	Ug/l	10	ND - 13	ND	ND	ND	ND - 8.5	ND	Erosion of natural deposits		
<b>RADIOLOGICAL</b>											
Gross Alpha Particle Activity	pCi/l	15	ND - 5.2	ND - 3.13	ND	ND - 4.7	ND - 5.2	2.8	Erosion of natural deposits		
Uranium	pCi/l	20	ND - 16	ND - 3.05	ND	ND - 3	ND - 16	0.4	Erosion of natural deposits		

## LEAD AND COPPER DISTRIBUTION SYSTEM MONITORING (2009 Results)

UNIT OF MEASURE	AL	PHG	NUMBER OF SAMPLES COLLECTED		90TH PERCENTILE LEVEL	NUMBER OF SITES EXCEEDING AL	SOURCES OF CONTAMINATION	
			39	39			Internal corrosion of household water plumbing systems; erosion of natural deposits	
Lead	15	0.2	39	39	ND	1		
Copper	1.3	0.3	39	39	0.16	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 <http://www.epa.gov/safewater/lead>.

## SECONDARY STANDARDS: Aesthetic Standards

UNIT OF MEASURE	SECONDARY MCL	PHG	NORCO WATER SOURCES						NORCO SYSTEMWIDE AVERAGE		SOURCES OF CONTAMINATION
			***WELL WATER		ARLINGTON DESALTER		CHINO DESALTER		W.M.W.D. MILLS		
			RANGE	1700 - 2900 <th>RANGE</th> <th>ND <th>RANGE</th> <th>ND <th>RANGE</th> <th>ND - 0.05 </th></th></th>	RANGE	ND <th>RANGE</th> <th>ND <th>RANGE</th> <th>ND - 0.05 </th></th>	RANGE	ND <th>RANGE</th> <th>ND - 0.05 </th>	RANGE	ND - 0.05	
Color Units	15	NS	ND - 5.0	ND	ND	ND	ND	ND	ND	Naturally occurring	
Turbidity	5	NS	0.1 - 0.2	ND - 0.46	ND	ND - 0.05	ND - 0.4	0.08	Soil runoff		
Odor Threshold Units	3	NS	1 - 1	ND - 2	1.0	ND	1.0 - 2.0	1.0	Naturally occurring		
Chloride	500	NS	120 - 240	35 - 39	10 - 120	ND - 28	ND - 240	84.3	Naturally occurring		
Sulfate	500	NS	36 - 74	35 - 39	5.0 - 18.0	0.6 - 7.8	0.6 - 74.0	38.5	Naturally occurring		
Total Dissolved Solids "TDS"	1000	NS	450 - 690	210 - 300	190 - 450	180 - 435	180 - 690	349.5	Naturally occurring		
pH Units	NS	NS	7.7 - 8.8	7.6 - 8.8	7.6 - 8.0	7.1 - 8.8	7.1 - 8.8	8.4	Naturally occurring		
Hardness as (CaCO3)	NS	NS	40 - 200	100 - 120	130 - 180	80 - 98	40 - 180	101.5	Naturally occurring		
Sodium	NS	NS	140 - 180	36 - 39	20 - 27	ND - 160	ND - 180	72.1	Naturally occurring		
Calcium	NS	NS	13 - 69	25 - 29	42 - 61	80 - 98	13 - 98	28.3	Naturally occurring		
Potassium	NS	NS	1.0 - 2.7	1.1 - 1.2	1.2 - 2.0	ND	ND - 2.7	1.2	Naturally occurring		
Magnesium	NS	NS	1.1 - 6.1	9.2 - 11.0	5.3 - 7.8	ND - 19.0	ND - 19.0	7.6	Naturally occurring		
Manganese	50	NS	ND - 660	ND	ND	ND - 1.5	ND - 35	ND	Naturally occurring		
Iron	300	NS	ND - 2900	ND	ND	ND	ND - 400	ND	Naturally occurring		
<b>ADDITIONAL MONITORING</b>											
Boron	Ug/l	NL = 1,000	1700 - 4600	ND	ND	ND - 400	ND - 4600	914.2	Petroleum By-product		

\*\*\*Well Water Results from Samples Taken 2008-2011

## DEFINITIONS, ABBREVIATIONS AND NOTES

**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**.

**MAXIMUM CONTAMINANT LEVEL GOAL (MCLG):** The level of a contaminant in drinking water there is no known or expected risk to health. MCLGs are set by the **U.S. Environmental Protection Agency**.

**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 and MCLGs as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**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.

**MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG):** The level of a drinking water disinfectant below which there is not known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**PRIMARY DRINKING WATER STANDARD (PDWS):** MCLs and MRDLs 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.

<b>mg/L</b>	Milligrams per liter (parts per million) is equal in time to one second out of a week and a half.
<b>ug/L</b>	Micrograms per liter (parts per billion) translates to just one second in nearly 33 years.
<b>pCi/L</b>	Pico curies per liter is a measure of radioactivity in water.
<b>NTU</b>	Nephelometric turbidity unit is the measurement of suspended material.
<b>NS</b>	No Standard
<b>ND</b>	None Detected, laboratory analysis indicates that the constituent is not present.

**\*Nitrate:** Nitrate in drinking water at levels above 45 mg/L are a health risk for infants 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 45 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 provider. Nitrate levels may rise quickly for short periods of time because of rainfall of agricultural activity. Large fluctuations of nitrate levels are common in Norco; the City is consistently below the State MCL.

**\*\*Fluoride Variance:** The City of Norco has natural occurring fluoride levels in some of their 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 customers, and compliance with the variance standard is based on a running annual average of 4 consecutive quarterly averages. The results for sampling completed during 2011 are provided in the enclosed table. During 2011, the highest running annual average was 2.6 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. The City is working on building a blending facility to blend down the fluoride levels in the water served to customers.**

**\*VIOLATIONS:** During 2011, the City of Norco was issued a citation by the Health Department for serving water containing nitrate above the MCL from 9/3 – 9/8/2011 to the northern part of the distribution system. The City has complied with all directives of the citation including notifying all affected customers of the incident and violation.

### A NOTE FROM THE EPA

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can also pick up substances resulting from the presence of animals or from human activity. 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 U.S. Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Contaminants that may be present in source water include:

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

In order to ensure the tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Public Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits in bottled water that provide the same protection for public health.

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 infection. These people should seek advice about drinking water from their healthcare providers. USEPA/Centers for Disease Control (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 (1-800-426-4791).



Public participation regarding water quality issues are welcome at our Streets, Trails & Utilities Commission meetings, which are held at 7:00 p.m. on the first Monday of each month, 4 times per year, at the Norco City Hall, Council Chambers, located at 2870 Clark Avenue, Norco, California. Norco water operations staff is also available to answer any questions you may have regarding our water supply at (951)270-5607.

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.

#### **Where to Contact Us**

Should you have additional questions regarding your water quality, please feel free to contact us at: **Public Works Department** 951-270-5607; **Utility Billing** 951-582-5546; **After Hours Emergency** 951-371-1143

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo o hable con alguien que lo entienda bien 951-270-5607

**CITY OF  
NORCO**

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NORCO CA 92860**

**NORCO'S WATER MEETS OR EXCEEDS ALL STATE AND  
FEDERAL WATER QUALITY STANDARDS**

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2012 CONSUMER CONFIDENCE REPORT  
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