

Town of Windsor, California

# Water Quality



2011 Consumer Confidence Report

## What's In Your Water?

Prepared Annually For Our Residents

Public Works Department

8400 Windsor Road, Bldg 100 / Windsor, CA 95492 / 707-838-1006



**T**he Town of Windsor takes great pride in providing very high quality drinking water to the residents and businesses in our community. As in previous years, and as shown in this 2011 Consumer Confidence Report on drinking water quality, statistical analysis shows that Windsor supplies drinking water that surpasses the Federal Environmental Protection Agency's (USEPA's) Safe Drinking Standards.

To ensure that tap water is safe to drink, USEPA and the State of California Department of Public Health (DPH) set these standards limiting the amounts of contaminants in water supplied by public water systems. DPH regulations also establish limits for contaminants in bottled water to assure the same level of public health protection.

The Town tests a long list of constituents for drinking water quality in order to comply with all State and Federal regulations. The four tables in this report give you the results of constituents that yield detectable levels.

Drinking water is routinely sampled and monitored for Maximum Contaminant Levels (MCLs) which is the highest level allowed for a specific contaminant. The Town is pleased to report that Windsor's drinking water meets all treatment standards, and in fact, the levels are significantly lower than those allowed under EPA and DPH standards.

## Where the Water Comes From

Our Town drinking water is supplied from groundwater extracted primarily from a series of large wells located in the deep gravel strata adjacent to the Russian River. Sources of Windsor's drinking water are:

1. Russian River Wells Eastside Road, Healdsburg
2. Sonoma County Water Agency Aqueduct, Forestville

Windsor stores 5 million gallons of water to provide for system reliability for all domestic and fire protection needs. There is also a direct connection to the Sonoma County Water Agency Aqueduct.

**“The Town is pleased to report that Windsor's drinking water meets all treatment standards...”**

## What is Groundwater?

Groundwater from wells, and surface water, from rivers, lakes and streams supply the nation's drinking water. About half of the people in the United States drink groundwater every day. It comes from rain, snow, sleet, and hail that moves into the ground by gravity. Windsor uses a simple but effective system to move groundwater from the source to residents and businesses. The system combines elevated water storage tanks and large diameter mains to serve most customers by gravity, further contributing to the reliability of the water supply.

Windsor is fortunate in that its groundwater sources are of a naturally high quality. As a result, the only form of treatment required by law to meet drinking water standards is disinfection with chlorine. To aid in protecting town distribution and home plumbing systems from the natural effects of corrosion, food additive quality polyphosphates are added to the water in minute dosages. After treatment, fresh water is delivered through an extensive 140+ mile water distribution system to consumers.



## Explanation of Terms Used in This Report

### **Maximum Contaminant Level (MCL):**

The highest level of a contaminant allowed in drinking water. Primary MCLs are set as close to the PHGs (of MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

### **Primary Drinking Water Standards (PDWS):**

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

### **Secondary Drinking Water Standards (SDWS):**

MCLs for contaminants that affect taste, odor or appearance of drinking water. Contaminants with SDWS's do not affect the health at the MCL levels.

### **Regulatory Action Level (AL):**

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

### **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 Residual Disinfectant Level (MRDL):**

The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

### **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 United States Environmental Protection Agency (USEPA).

**DPH:** State of California Department of Public Health

**NA:** Not applicable

**ND:** not detectable at testing limit

**NTU:** nephrolometric turbidity units

**ppm:** Parts per million or milligrams per liter (mg/L)

**ppb:** parts per billion or micrograms per liter (ug/L)

**ppt:** parts per trillion or nanograms per liter (ng/L)

**pCi/L:** picocuries per liter (a measure of radiation)

**µmho/cm:** micromhos per centimeter

**“Windsor is fortunate that its groundwater sources are of a naturally high quality.”**

*Este informa contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entinda bien*



## Information Sources

### Town of Windsor Website

[www.townofwindsor.com](http://www.townofwindsor.com)

Our website will give you additional information on our water supply system and water conservation ideas for your home and business.

### Town Council Meetings

Meetings occur the first and third Wednesday of each month.

Town of Windsor Civic Center, 9291 Old Redwood Highway, Building 400, Windsor CA 95492

### For More Information

Contact Mike Cave, Water System Supervisor, at 707-838-1006

## What the Tables Mean

Tables 1, 2, 3 and 4 list all the drinking water contaminants detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. 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. 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 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.

*Contaminants that may be present in source water include:*

- Microbial contaminants, such as viruses and bacteria, that 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 result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas productions, mining or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm runoff, agricultural application and septic systems.
- Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

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

**Table 1- Sampling Results Showing the Detection of Lead & Copper**

Lead & Copper	Number of Samples	90% Level Detected	Number of Sites Exceeding AL	AL	MCLG	Typical Source of Contaminants
Lead (ppb)	33	N/D	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	33	1	1	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**Table 2- Sampling Results for Sodium & Hardness**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG	Typical Source of Contaminants
Sodium (ppm)	4/18/11,8/16/11,8/17/11	10.14	6.7-12.0	no MCL	no PHG	Generally found in ground and surface water
Hardness (ppm)	4/18/11,8/16/11,8/17/11	122.33	100-150	no MCL	no PHG	Generally found in ground and surface water

**Table 3-Detection of Contaminants w/ a Primary Drinking Water Standard**

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL	PHG	Typical Source of Contaminants
Barium (ppm)	4/18/11,8/16/11,8/17/11	0.12	ND-20	1 ppm	2 ppm	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Nitrate (ppm)	4/18/11,4/27/11,7/26/11,8/16/11,8/17/11	4.99	ND-7.2	45 (as nitrate)	45 (as NO3)	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs (µg/L)	9/22/2011	10.78	1.5-25.0	80 µg/L	N/A	Byproduct of drinking water disinfection
HAA5 (µg/L)	9/22/2011	3.3	1.0-7.2	60 µg/L	N/A	Byproduct of drinking water disinfection
Flouride (ppm)	4/18/11,8/16/11,8/17/11	0.14	.11-.15	2.0	1.0	Erosion of natural deposits; water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron (µg/L)	4/18/11,8/16/11,8/17/11	50	ND-150	300 µg/L	N/A	Leaching from natural deposits; industrial wastes

**Table 4- Detection of Contaminants- Secondary Drinking Water Standard**

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL	Typical Source of Contaminants
Sulfate (mg/L)	4/18/11,8/16/11,8/17/11	14.94	13-17	500 mg/L	Runoff/leaching from natural deposits; industrial wastes
Chloride (mg/L)	4/18/11,8/16/11,8/17/11	8.04	5.5-11	500 mg/L	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µs/cm)	4/18/11,8/16/11,8/17/11	313	250-380	1600 µs/cm	Substances that form ions when in water; seawater influence
Total Dissolved Solids (mg/L)	4/18/11,8/16/11,8/17/11	177	130-220	1000 mg/L	Runoff/leaching from natural deposits
Color (units)	4/18/11,8/16/11,8/17/11	3	ND-3	15 units	Naturally-occurring organic materials
Turbidity (units)	4/18/2011	0.31	.03-.75	5 units	Soil runoff



**D**rinking 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 (1-800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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. 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 at 1-800-426-4791.

## More Information About Your Drinking Water

### Lead

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. Town of Windsor 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>.

### Hardness

The term "hardness" was originally derived from the water's ability to react with soap to create suds. If it was hard to make suds, the water was considered hard. If it was not hard to make suds, the water was considered soft. The water industry standard for determining hardness today, is to measure the concentration of calcium carbonate in the water. The sources of supply Windsor utilizes produce water with moderately high calcium carbonate levels. However, modern detergents and cleaning products are typically formulated to create suds and disperse cleaning agents even in hard water.

Calcium carbonate hardness creates no sanitary or health related problems and there is no maximum contaminant level regulation. Its aesthetic impacts, such as water spotting and fixture deposits, can be adequately managed with good housekeeping practices.

In large part, the effects and feel of hard water vs. soft water are subjectively based on what the individual is accustomed to. Some people are very acclimated to soft water and opt to install and use water softeners on their home water system. These can reduce hardness and related hardness effects. Persons with sodium-regulated diets are cautioned to avoid the types of softeners that increase sodium content in their drinking water. If individuals who insist on having a water softener have concerns about sodium, they should specify installation of another type of water softener that does not increase sodium. Or, sodium can be removed after softening by a point-of-use filter/conditions at the tap.

**Safe Drinking Water Hotline: 1-800-426-4791**



# Save Water, Money, Energy Now!

## TOP 5 ACTIONS

With so many ways to save water, here are the highlights for 5 key actions to help you capture water savings around your home. Remember, every drop counts!

Rebate Questions? Call the Water Conservation line at 707-838-5357  
or visit [www.townofwindsor.com](http://www.townofwindsor.com)

### 1. Stop Those Leaks!

Check your indoor water using appliances and devices for leaks. Many silent leaks allow water and your money to go down the drain. To help detect unseen leaks learn how to read your meter. Studies have shown homes can waste more than 10% due leaking, which costs both you and the environment.

Another large water waster can be leaks in your irrigation system. Fix irrigation system leaks quickly and check for water in the gutters or mud puddles. Inspect your sprinklers and drip sprayers regularly for leaks during the daytime since the optimal time to water is in the nighttime hours when you cannot observe leaks. If you have an older irrigation system, over 50% and even more than 75% of the water can be lost to leaks.

### 2. Replace your old Toilet, the largest water user inside your home.

If your home was built before 1992 and the toilet has never been replaced, then it is very likely that you do not have a water efficient 1.6 gallon per flush toilet. You can check the date stamp inside the toilet by lifting the lid and looking at the back of the toilet at the manufacturer's imprint of the make, model and date of manufacture.

### 3. Replace your Clothes Washer, the second largest water user in your home.

Energy Star™ rated washers that also have a Water Factor at or lower than 9.5, use 35-50% less water and 50% less energy per load. This saves you money on both your water and energy bills.

### 4. Plant the Right Plants with Proper Landscape Design & Irrigation

Whether you are putting in a new landscape or slowly changing the current landscaping at your home, select plants that are appropriate for your local climate conditions.

### 5. Water Only What Your Plants Need

Most water is wasted in your garden by watering when you plants do not need the water or by not maintaining the irrigation system. Be attentive if you are manual watering by setting your oven timer or some other reminder to move the water promptly. Make sure your irrigation controller has a rain shutoff device and that it's appropriately scheduled. Most water is wasted in months prior to or just after the rainy season when intermittent rains occur. You can also consider installing a weather adjusting ET irrigation controller that automatically saves water by not watering when the plants don't need the water, check with your local water provider to inquire if ET controllers work in your area. ([www.h2ouse.org](http://www.h2ouse.org))

# What's In Your Water?

Look Inside For Details



Public Works Department  
8400 Windsor Road, Bldg 100  
Windsor, CA 95492  
Phone: 707-838-1006  
Fax: 707-838-3137

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US Postage  
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Windsor, CA 95492  
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