



**COMMUNITY
WATER CENTER**
EL CENTRO COMUNITARIO
POR EL AGUA



Is my water safe?

A guide to finding out what is in your water and how to protect yourself from unsafe water

The most common question that community residents want to know is what is in the water coming out of their taps and whether it is safe. Unfortunately, this basic question is not as easy to answer as you might think. First, you must find out where your water comes from, and most importantly, whether you get water from a private well or a public water system. Only then can you find out what monitoring information is available and decide whether you want or need additional testing. The following questions take you through the process.

Where does my water come from?

The first question to answer is whether you (or if you rent, the property owner) pay an entity to provide drinking water from your tap. If the answer is no, you probably have a private well. If the answer is yes, you are probably served by a public drinking water system. Only public drinking water systems (PWSs) are subject to the state and federal Safe Drinking Water Acts.

What is a public water system (PWS) and how do I know if my water comes from one?

If you get a bill for your tap water, you are probably served by a PWS. If you rent your home and do not pay your own water bill, you may still be served by a PWS. Ask your landlord for information on who provides water to your home and the contact information of the water system in case you have further questions.

There are many different kinds of entities that operate PWSs, each with their own structures and governing rules. Nevertheless, all PWSs are subject to the Safe Drinking Water Acts, meaning that all are required to regularly monitor and provide information on the quality of the water. The Safe Drinking Water Acts also set different requirements for monitoring and treating water depending on the source of water – *i.e.*, surface or groundwater.

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available at: www.communitywatercenter.org

What if I have a private well?

If you are served by your own private well, then you are solely responsible for the quality of that water. There are no requirements or regulations regarding testing, quality, or reporting of private wells under the state and federal Safe Drinking Water Acts. However, most county ordinances set basic construction permit requirements before a well can be drilled, and some require testing of private wells before a title can change hands on a residential property. Overall, there is virtually no oversight of private wells in California. All maintenance and repairs are the responsibility of the landowner, and to get water quality information you will need to do your own water testing.

Please see CWC's "Guide for private well owners" for more information, available at: www.communitywatercenter.org.

Find out where your water comes from:

If you pay a monthly water bill, you are probably served water by a public water system .	Locate your bill and find the name and phone number for your water provider.
If you do not pay a monthly water bill and you own your own home, your water probably comes from a private well .	Can you identify where your well is located?
If you do not pay a monthly water bill and you rent, ask your landlord whether your water is from a private well or a public water system .	What did your landlord say?

How can I get water quality information from my public water system (PWS)?

The first thing to understand about water is that no one knows if a particular contaminant is in the water until someone specifically tests for that particular contaminant. Water may contain chemicals that you cannot see or smell and there is no one test that can detect every chemical, bacteria, or pathogen in existence. You can only find contaminants that you test for and only at levels that equipment allows you to detect. Therefore, new chemicals (such as pesticides, pharmaceuticals, and fuel additives) may be present but undetected in water until someone tests for those exact chemicals. The Safe Drinking Water Acts require all PWSs to test regularly for known contaminants that are most likely to be in particular water sources. For a full list of contaminants regulated under the Safe Drinking Water Acts, please visit:

<http://www.cdph.ca.gov/CERTLIC/DRINKINGWATER/Pages/Chemicalcontaminants.aspx>.

The Safe Drinking Water Acts require PWSs to monitor regularly for common drinking water contaminants and to notify customers if those contaminants are found above Maximum Contaminant Levels (MCLs). While the MCLs are the same for every kind of PWS, the Safe Drinking Water Acts set different monitoring requirements for different contaminants and classes of PWSs. Generally, however, water systems only send notices to their customers, who often are landlords, businesses, or schools.

Because water systems often do not know who the actual users of the water are, the law requires landlords, businesses, and schools served by a public water system to post or otherwise inform their tenants, customers, and students immediately when they are given a notice regarding water safety.

All PWSs that serve customers year-round are also required to provide an annual water quality report to customers, called a Consumer Confidence Report (CCR). Therefore, no matter what kind of entity provides your water (private company, city, special district), if your system serves more than 25 people or 15 units year-round, it must provide an annual report.

What information is in a Consumer Confidence Report (CCR) and what does it mean?

Consumer Confidence Reports (CCRs) must be mailed out by July 1st each year for all community water systems. They provide basic information from the past year on the following:

- The source of the drinking water (*e.g.*, groundwater wells, surface water treatment plants, etc.);
- The susceptibility to contamination of the local drinking water source (*e.g.*, what types of sources of contamination may threaten the quality of your drinking water supply, such as fertilizer from agricultural fields, dry cleaners, and septic systems);
- How to get a copy of the water system's complete source water assessment;
- The level (or range of levels) of any contaminant found in local drinking water, as well as EPA's and California's health-based standard (maximum contaminant level) for comparison;

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- The likely source of that contaminant in the local drinking water supply (usually this is just a boilerplate list of common sources for that contaminant written by the EPA);
- The potential health effects of any contaminant detected in violation of an EPA or California health standard, and an accounting of the system's actions to restore safe drinking water;
- The water system's compliance with other drinking water-related rules;
- An educational statement for vulnerable populations about avoiding *Cryptosporidium*, a waterborne pathogen;
- Educational information on nitrate, arsenic, or lead in areas where these contaminants may be a concern; and
- Phone numbers for additional sources of information, including the water system and EPA's Safe Drinking Water Hotline (800-426-4791).

The problem with CCRs is that the information is generally a year old. Therefore, to get the most up-to-date water quality information, you may need to request other water monitoring reports. Generally, however, CCRs provide useful information on where your drinking water comes from, what contaminants have been found in it, what the health impacts of those contaminants are, and what the system is doing about it.

Maximum Contaminant Level (MCL) and Public Health Goals (PHGs)

A **Maximum Contaminant Level (MCL)** is the legal level of a contaminant that is allowed in drinking water. For example, the MCL for arsenic is 10ppb.

Federal MCLs are set by the EPA under the Safe Drinking Water Act. California can set stricter MCLs through the Department of Public Health (DPH). These limits are set by taking into account public health as well as costs and technical feasibility.

The Office of Environmental Health Hazard Assessment (OEHHA) also sets a **Public Health Goal (PHG)** for each contaminant. For example, the PHG for arsenic is 0.004 ppb or 4 parts per trillion (ppt). This is the level that is considered safe for human consumption based only on public health studies, and not accounting for cost and technical feasibility.

Understanding MCL units

Most MCLs are measured in milligrams per liter (mg/L). This is the standard unit of measure of how many milligrams of a contaminant are in a liter of water. One mg/L is equal to one millionth of a liter. This is equivalent to one cup of a contaminant in a swimming pool of water.

mg = milligram = one-thousandth of a gram | mg/L = milligram per liter = part per million (ppm)

mcg or µg = microgram = one-millionth of a gram | mcg/L or µg/L = microgram per liter = part per billion (ppb)

How to Read Your Consumer Confidence Report

Look here to find the dates that the water was tested.

Look here to find the contaminants that your water system has tested for.

This is the average level of each contaminant detected in your water.

Look here to see the highest and lowest levels detected in different samples.

This is the legal limit (also sometimes called Action Levels). Check to see how this compares to the level detected.

This is the public health goal, the safe level for a contaminant. Compare to the level detected.

Look here to find out what types of sources this contaminant may come from in your area.

TEST RESULTS: DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Dibromochloropropane (DBCP), ppt	9/28/06	9.5	ND to 38	200	1.7	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
Nitrate as NO ₃ , ppm	9/28/06 11/29/06 12/25/07 4/26/07 5/23/07	48	34.1 to 65	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Arsenic, ppb	1/20/05 9/28/06	5	2 to 8	10	.004	Erosion of natural deposits; runoff from orchards
Fluoride, ppm	1/20/05 9/28/06	.25	0.20 to 0.30	2.00	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Barium, ppm	1/20/05 9/28/06	0.84	0.33 to 1.35	1	NA	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits

Nitrate is over both the public health goal (PHG) and the maximum contaminant level (MCL), and therefore should be a concern. Look in your CCR for an explanation of what your system is doing to fix the problem.

The average sample of Barium was not over the MCL, but one sample was over the MCL. So you may want to follow-up with your water system to find out what is being done to make sure no one is exposed to levels over the MCL.

Arsenic is not over the MCL, but is over the PHG. Therefore, while there is not a violation, you may want to take precautions, particularly if you have vulnerable people in your home such as pregnant women or children.

Your Water Quality Results

After looking at your CCR, can you answer the following questions:

- ***Where does your water come from? For example, from a well or surface water?***

- ***What was the highest level of contaminant detected? The lowest?***

- ***Which contaminants had a level detected above the MCL or PHG?***

How do I request water monitoring reports and other information?

The Safe Drinking Water Acts require all PWSs to monitor for a list of specific contaminants. All monitoring information is publicly available either through your local water provider (PWS) or through the agency that regulates the PWS. To request water monitoring reports from your PWS, contact the number or address on your monthly water bill. If you have any problems getting information from your water provider, you can contact your local DPH office.

CCRs in Languages Other Than English

All CCRs must contain information in Spanish explaining the importance of the report or contain contact information for where Spanish-speaking residents may obtain a translated copy of the report or assistance in Spanish. Additionally, for all other non-English speaking groups that exceed 1,000 residents or 10% of the residents in a community, whichever is less, the CCR must also contain information in that language on the importance of the report or contain contact information for where residents can obtain a translated copy or assistance in that language.

Additional information on CCRs

For additional sources of information on your CCR, see the EPA at <http://www.epa.gov/safewater/ccr/index.html> or the NS Foundation at http://www.nsf.org/consumer/drinking_water/dw_quality.asp?program=WaterTre#understand or call EPA at 1-800-426-4791.

You can also download a free consumer guide on how to understand your CCR report at <http://www.safe-drinking-water.org/pdf/makesense.pdf> or call CWC at 559-733-0219.

What can I do if my water is unsafe to drink?

If your tap water is not safe to drink, you should immediately find a short-term alternative water source (such as bottled water or an in-home filter). Boiling water may kill things like bacteria and pathogens, but often concentrates other contaminants (such as arsenic and nitrate), making those problems **worse**. You should find out why your water is unsafe and make sure that your water system is working to secure a long-term solution. Ultimately, you have a right to safe water and should ensure that you don't have to pay twice for water or be exposed to unsafe contaminants.

Should I buy an in-home water treatment device?

Many times, the most cost-effective short-term solution is installing a water treatment device in your home. Depending on the type of device that you need, prices can range from \$30 to \$400 or more for a treatment device on or under your sink. This can be much cheaper than paying for bottled water over time. However, it is extremely important that you choose the right treatment device that is **certified** to remove the exact contaminants in your water, and that the device is **properly installed and maintained**. If you do not change the filters in the treatment device regularly, for example, contaminants may build up and release bursts of extremely high levels, causing much more serious exposure. Also, keep in mind that these water treatment devices only work on the sinks where they are installed, so they will not reduce exposure in the shower, for example. Some devices are available to filter water for the whole home, however these are much more expensive. Also see "CWC's guide to buying water filters" for more information, available at: www.communitywatercenter.org.

How do I know which water treatment device to buy?

Because different kinds of treatment devices take out different contaminants, you first have to know what is in your water. Once you know exactly what contaminant is making your water unsafe, find a treatment device that is certified to reduce or remove that specific contaminant. If you have high levels of more than one type of contaminant in your water, look for devices that are listed as certified under all those contaminants. A full list of approved treatment devices is available for each contaminant at <http://www.cdph.ca.gov/certlic/device/Pages/watertreatmentdevices.aspx> or by calling the California Dept. of Public Health at (916) 449-5600.



Questions to think about before buying a filter, either in a store or from a vendor

What contaminant is the filter able to remove or reduce?

Is the filter certified by DPH?

Where can you get replacement filters? How expensive are they?

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Vended Water vs. Bottled Water

Remember, **bottled water** is sealed before it is sold to you. If you fill your own reusable bottles through a machine, that is called **vended water**. The quality of vended water is much less reliable than bottled water.

Should I buy bottled water?

Bottled water may be a good short-term solution when your tap water is contaminated, but it can be very expensive over time. Keep in mind, however, that although all bottled water companies must have a license from DPH's Food and Drug Branch, there are actually fewer legal requirements for testing bottled water to ensure that it is safe than there are for your tap water. There are also many environmental concerns about bottled water, including the amount of oil and water it uses, as well as the amount of waste it generates. Other concerns have been raised about chemicals from the plastic bottles being released into the water. For more information on the concerns about bottled water, see <http://www.nrdc.org/water/drinking/bw/bwinx.asp>. Additionally, it is often impractical to use bottled water for things like cooking, making juice or ice, and washing dishes. Therefore, bottled water may not be your best alternative.



A Warning about Vended Water

Water vending machines are common in California. They're found in front of, and sometimes inside, almost every grocery store. Vending machines are connected to a tap water line, and use multiple filters to cleanse the water. The water is then dispensed to paying customers who bring their own container.

If you have health concerns about your drinking water, vended water is **not** a solution. Water vending machines are designed to remove secondary contaminants – those affecting the flavor and smell of the water only. In fact, the machines are only tested for one health-based contaminant – coliform bacteria – once every six months. So relying on vended water to reduce your intake of primary, health-based contaminants like arsenic or nitrates, is not a good idea.

Vended water is a good alternative if:

- you are trying to improve the taste or smell of your water, and
- you are unable to use a filter for your own tap water.

For instance, if your water is high in minerals, or tastes strongly of chlorine, the filtration process in the vended water machine can really improve the taste of your drinking water. Just remember that it is likely less expensive in the long-run to install a filter on the tap in your home than continue to pay for vended water. Vended water is not always a good option. Do **NOT** use vended water if:

- the local PWS's water has a contaminant over legal limits; or
- the machine does not list its last date of service (cleaning); or
- if the last service date is more than a month old.

It is **illegal** to operate a vended water machine if the tap water feeding it is in violation of a drinking water standard. So if your community's drinking water is not drinkable, neither is the vending machine water.

Vending machines also require regular maintenance. Filters need to be changed regularly, and the dispenser needs to be cleaned, as bacteria tend to form at the spigot. Under a law enacted January 1, 2008, machines must be maintained at least monthly, and the last service date must always be posted on the machine. That same law, SB220, requires that information on the machine must be posted in both English and Spanish, and that two phone numbers – one for the machine operator, and one for DPH – must be posted on the machine for customer questions or complaints. If you're concerned about the water coming out of your machine, call DPH to come out and inspect the machine.

Basic steps to understanding and addressing water quality concerns

1 Call your water provider, which should be listed on the back of your water bill, and say:

"I am a customer of the company. Please send me the latest water quality information. Can you also tell me when and where the water board meets?"

If you need information in Spanish, you can ask: "Please send me a Spanish copy, or tell me where I can speak to someone in Spanish about the report."

What is your water company's name and number? When is the next water board meeting?

2 Read and understand your CCR to see if your water is safe.

Do you have any contaminants over the MCL or PHG? If so, which one(s)?

3 If your water is unsafe, seek short term water solutions.

Which short-term solution is best for you: home water filter, vended or bottled water?

4 Work with your water provider to secure long-term water solutions for your community.

What are your water quality concerns and what is your water provider doing to address these problems?

Where to find more information



**COMMUNITY
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CWC provides organizing, education, and advocacy assistance to communities seeking to secure safe, clean, and affordable water in the San Joaquin Valley.

www.communitywatercenter.org

(559) 733-0219

Advocacy & Community Assistance Organizations with Water Expertise in California

- [California Rural Legal Assistance Foundation](http://www.crlaf.org) provides technical, legal and advocacy assistance to farmworker communities on issues that impact health and civil rights.
<http://www.crlaf.org>
(916) 446-7901
- [Center on Race, Poverty & the Environment](http://www.crpe-ej.org) provides legal, and organizing assistance to environmental justice communities.
<http://www.crpe-ej.org>
(661) 720-9140 (Southern San Joaquin Valley)
(415) 346-4179 (All other regions)
- [Clean Water Action / Clean Water Fund](http://www.cleanwateraction.org) provides advocacy and technical assistance to help secure safe and affordable drinking water.
<http://www.cleanwateraction.org>
<http://www.cleanwaterfund.org>
(415) 369-9160
- [Environmental Justice Coalition for Water](http://www.ejcw.org) provides a network of support and expertise to environmental justice communities working on water issues throughout the state.
<http://www.ejcw.org>
(510) 286-8400

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Advocacy & Community Assistance Organizations with Water Expertise in California *(continued)*

- [Self Help Enterprises](http://www.selfhelpenterprises.org) provides assistance for communities developing water and wastewater systems in the San Joaquin Valley by helping them secure funding and technical assistance.
<http://www.selfhelpenterprises.org>
(559) 651-1000

Consumer Confidence Reports (CCRs)

- [Clean Water Fund](http://www.safe-drinking-water.org/pdf/makesense.pdf) has a consumer guide to understanding CCRs.
<http://www.safe-drinking-water.org/pdf/makesense.pdf>
- [DPH](http://www.cdph.ca.gov/certlic/drinkingwater/Pages/CCR.aspx) has information on CCRs.
<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/CCR.aspx>
- [EPA](http://www.epa.gov/safewater/ccr/index.html) has information on CCRs.
<http://www.epa.gov/safewater/ccr/index.html>
- [NS Foundation](http://www.nsf.org/consumer/drinking_water/dw_quality.asp?program=WaterTre#understand) has information on understanding your CCR.
http://www.nsf.org/consumer/drinking_water/dw_quality.asp?program=WaterTre#understand

Drinking Water Contaminants

- [Agency for Toxic Substances and Disease Registry](http://www.atsdr.cdc.gov/toxpro2.html#bookmark05) has toxicological profiles of many contaminants.
<http://www.atsdr.cdc.gov/toxpro2.html#bookmark05>
(888) 422-8737
- [Center for Disease Control](http://www.cdc.gov/health/water.htm) has information on many drinking water contaminants.
<http://www.cdc.gov/health/water.htm>
- [DPH](http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Chemicalcontaminants.aspx) has information on drinking water contaminants.
<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Chemicalcontaminants.aspx>
- [EPA](http://www.epa.gov/ogwdw/hfacts.html) has information on drinking water contaminants.
<http://www.epa.gov/ogwdw/hfacts.html>
- [National Toxicology Program](http://ntp.niehs.nih.gov/) has information on most contaminants.
<http://ntp.niehs.nih.gov/>

Drinking Water Contaminants *(continued)*

- [Office of Environmental Health Hazard Assessment](http://www.oehha.ca.gov/water/phg/allphgs.html) has a list of public health goals for chemicals in drinking water and links to the studies on which those levels are based. <http://www.oehha.ca.gov/water/phg/allphgs.html>
- [World Health Organization](http://www.who.int/water_sanitation_health/dwq/chemicals/en/index.html) has background documents on drinking water contaminants. http://www.who.int/water_sanitation_health/dwq/chemicals/en/index.html

Home Water Filters & Treatment

- [DPH](http://www.cdph.ca.gov/certlic/device/Pages/watertreatmentdevices.aspx) has a guide on home treatment devices and a list of certified treatment devices updated each spring. <http://www.cdph.ca.gov/certlic/device/Pages/watertreatmentdevices.aspx>
(916) 449-5600.
- [NS Foundation](http://www.nsf.org/consumer/drinking_water/dw_treatment.asp?program=WaterTre) has a list of certified treatment devices and a guide for treatment devices for different water contaminants. http://www.nsf.org/consumer/drinking_water/dw_treatment.asp?program=WaterTre



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