

2010 Water Quality Report

Water System 4910016



*Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.*

Your Drinking Water Sources and Treatment

The City of Cotati's (Cotati) drinking water consists entirely of groundwater and is supplied by the Sonoma County Water Agency (SCWA) and three local groundwater wells owned by Cotati.

The SCWA water supply originates from six specialized wells (commonly called

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“radial collectors”) along the Russian River at Wohler Road and Westside Road (near Forestville), three conventional groundwater wells along the Russian River in the same area, and three conventional wells in the Santa Rosa Plain near Occidental and Todd Roads (See Page 4).



Three main reservoirs in the Russian River (Lake Mendocino and Lake Sono-

ma) and Eel River (Lake Pillsbury) watersheds supply the water which is used to replenish the groundwater around the SCWA's radial collectors. This water, filtered by the sand and gravel beds beneath the river, is called “river-bank filtration”. The natural filtration removes organic material and turbidity, leaving highly filtered drinking water for over 600,000 residents of Sonoma and Marin counties.

The only required treatment is for bacterial and pathogen disinfection and pH adjustment. To accomplish this, the SCWA treats the water with chlorine for disinfection, and sodium hydroxide to adjust the pH before it is delivered to the various water districts and cities, including Cotati.

The pH adjustment is necessary to comply with federal Environmental Protection Agency (EPA) regulations on the copper content in drinking water. Raising the pH helps minimize the leaching of copper and other metals from the distribution pipe and interior home plumbing, which extends the life of piping and also prevents elevated levels of copper in the wastewater, which is expensive to treat.

Cotati receives SCWA water through two connections with a SCWA transmission pipeline as it passes through the city.

Cotati has three groundwater wells; Well 1A is near the downtown hub; Well 2 is near Ladybug Park (inside Cotati city limits); and Well 3 is near the western city limits. Water from Cotati's wells are used to supplement

water received from the SCWA. In 2010, approximately 31% of the drinking water in Cotati came from the city's groundwater wells.

Wells 1A and 3 have elevated manganese and iron levels in the raw (untreated water). Both of these compounds are naturally occurring in the groundwater. However, they are of aesthetic concern because they can cause taste, odor and staining issues if left untreated. To address this, Cotati treats the raw water from Wells 1A and 3 by filtering the water. This process reduces the levels in the finished water so that they are no longer an

General Plan Update

Cotati's General Plan has not been comprehensively updated since 1998. The General Plan is an important planning tool, and is required by state law to be updated from time to time. This comprehensive update will ensure that information in the General Plan is current and that the General Plan's goals, action items, and land use plans are consistent with the community's vision for Cotati's future. The General Plan Update will take approximately two years. Throughout the update process, community involvement is welcomed and encouraged.

Please visit cotati.generalplan.org for up to date information on the General Plan process and to find ways that you can participate.

Definitions

These terms are used in the table on the following page.

AL: Regulatory Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL: Maximum Contaminant Level. 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. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MCLG: Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

MRDL: Maximum Residual Disinfectant Level. 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.

MRDLG: Maximum Residual Disinfectant Level Goal. 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.

PHG: Public Health Goal. 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.

PDWS: Primary Drinking Water Standard. MCLs and MRDLs for contaminants that affect health along with their monitoring, reporting and treatment requirements.

TT: Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

pCi/L: Picocuries per liter.

mg/l: Milligrams per liter or ppm.

ug/l: Micrograms per liter or ppb.

ND: Not detectable at testing limit.

TON: Threshold Odor Number.

uS/cm: Microsiemens per centimeter.

NTU: Nephelometric Turbidity Units.

Water Conservation

Water is a precious and limited resource that will continue to come under increasing pressure to meet a variety of competing needs, including a growing population, recreation, agriculture, and preserving our aquatic ecosystems. In addition, it is unclear what effect global climate change will have on the quantity and timing of rainfall in our watersheds. Therefore, we must use our drinking water supplies efficiently to ensure a reliable supply that will meet all of our current and future needs.

There are several things you can do today to begin saving water, including:

- Water your yard in the early morning to minimize evaporation
- Regularly check your sprinkler system for broken heads and flooding
- Replace your lawn with drought-tolerant plants

The City also has several water conservation programs that Cotati residents can participate in, including:

- FREE indoor & outdoor home water saving audits and fixture retrofits for your home or business
- FREE toilet retrofit programs for qualifying toilets
- Residential washing machine rebate programs for qualifying washing machines
- The Cash for Grass rebate program that can pay you to replace your lawn with low water landscaping

Call 665.3637 or visit <http://ci.cotati.ca.us/wc> to learn more.

TABLE OF DETECTED CONSTITUENTS ^{a,b}

Constituent	Unit	PHG	MCL	SCWA Wells		City of Cotati Wells		Typical Source in Drinking Water
				Range Detected	Average ^c	Range Detected	Average ^c	
Primary Health Standards (Regulated Constituents with Primary MCLs or MRDLs)								
Disinfection Byproducts								
Total Trihalomethanes	ug/l	-	80	-	-	12 - 21	17.4	By-product of drinking water disinfection
Haloacetic Acids	ug/l	-	60	-	-	3.4 - 8	5.1	By-product of drinking water disinfection
Inorganic								
Arsenic	ug/l	0.004	10	ND	ND	ND - 2.6	0.9	Erosion of natural deposits
Barium	mg/l	2	1	ND	ND	0.15 - 0.21	0.18	Erosion of natural deposits
Fluoride	mg/l	1	2	ND	ND	0.21 - 0.42	0.29	Erosion of natural deposits
Nitrate/Nitrite								
Nitrate (as NO ₃)	mg/l	45	45	ND	ND	ND - 6	3.6	Run-off/leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Lead/Copper Rules								
<i>Collected at customers tap</i>				90th percentile level detected		90th percentile level detected		
<i>Samples collected = 25</i>								
<i>Samples exceeding AL = 0</i>								
Copper	mg/l	0.3	1.3 (AL)	-	-	0.23		Internal corrosion of household plumbing; erosion of natural deposits
Lead	ug/l	0.2	15 (AL)	-	-	<5		Internal corrosion of household plumbing; erosion of natural deposits
Secondary Aesthetic Standards (Regulated Constituents with Secondary MCLs)								
Chloride	mg/l	-	500	5.3 - 22	9.3	32 - 57	45.7	Run-off/leaching from natural deposits
Color	Units	-	15	ND - 4	0.6	3 - 10	7.7	Naturally occurring organic materials
Iron	ug/l	-	300	ND	ND	ND	ND	Leaching from natural deposits
Manganese	ug/l	-	50	ND - 41	9.3	ND - 22	2	Leaching from natural deposits
Odor - Threshold	TON	-	3	ND - 63	6.6	ND - 1.2	0.4	Naturally occurring organic materials
Specific Conductance	uS/cm	-	1600	240 - 290	261.1	320 - 550	436.7	Substances that form ions when in water
Sulfate	mg/l	-	500	2 - 15	10	7.7 - 28	16.2	Run-off/leaching from natural deposits
Total Dissolved Solids	mg/l	-	1000	130 - 180	148.9	230 - 350	283.3	Run-off/leaching from natural deposits
Turbidity	NTU	-	5	ND - 2	0.1	0.36 - 1.4	0.73	Soil run-off
Additional Unregulated Constituents								
Bicarbonate	mg/l	-	-	-	-	130 - 230	170	Erosion of natural deposits
Total Alkalinity	mg/l	-	-	95 - 120	107	110 - 190	140	Erosion of natural deposits
Calcium	mg/l	-	-	12 - 23	18.6	13 - 44	24	Erosion of natural deposits
Hardness (Total) as CaCO ₃	mg/l	-	-	40 - 118	86.7	71 - 210	121	Erosion of natural deposits
Magnesium	mg/l	-	-	2.1 - 15	9.9	8.1 - 24	14.7	-
pH	Units	-	-	7.34 - 8.37	7.6	7 - 7.4	7.2	-
Potassium	mg/l	-	-	1.2 - 1.9	1.4	NA	NA	-
Radon 222 ^d	pCi/L	-	-	99 - 403	162	NA	NA	Found in the ground throughout the U.S.
Sodium	mg/l	-	-	8.1 - 44	18.4	31 - 54	39.6	Erosion of natural deposits

NOTES:

^a Tests for over 80 different water constituents were performed in 2010. This table only contains those tests that indicated a result above the detection limit.

^b All test results are for 2010 or most recent year of testing.

^c All Non-Detects are included in the average as zero.

^d Radon is a radioactive gas that you cannot see, taste or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities.

Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your State radon program (1-800-745-7236), the EPA Safe Drinking Water Act Hotline (1800-426-4791), or the National Safe Council Radon Hotline (1-800-SOS-RADON).

Source Water Assessment

All community drinking water systems are required to have source water assessments conducted to evaluate vulnerability to contamination. In March of 2003, the California Department of Health Services conducted a source water assessment of Cotati's groundwater wells. No contamination has ever been found, but the assessment identified the following vulnerabilities to potential sources of contamination:

- **Well 1A:** Considered most vulnerable to potential leakage from sewer collection systems and confirmed leaking underground storage tanks.
- **Well 2:** Considered most vulnerable to potential leakage from sewer collection systems.
- **Well 3:** Considered most vulnerable to confirmed leaking underground storage tanks.

A copy of the complete assessment may be viewed at:

Drinking Water Field Operations Branch
50 D Street, Suite 200
Santa Rosa, Ca 95404

You may also view a summary of the assessment at:

<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx>

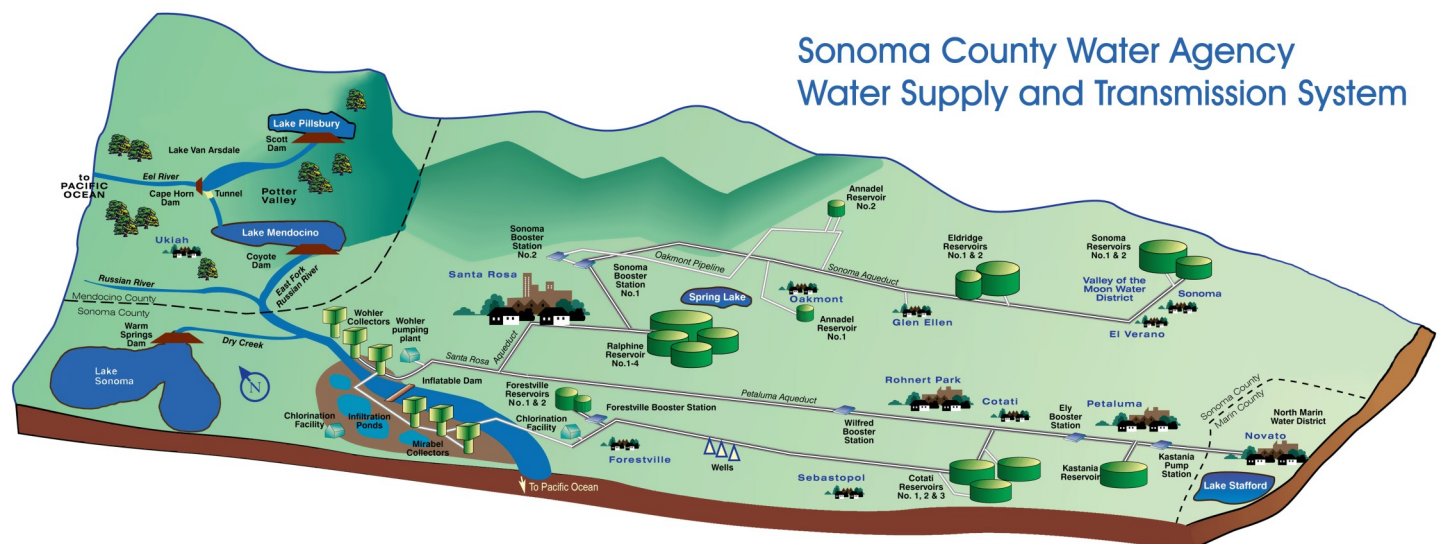
Water Supply Update

Cotati normally obtains about 1/3 of its water supply from local wells, with the remaining supply coming from the Sonoma County Water Agency (SCWA). Locally, the City operates our wells to preserve the local groundwater resource by not exceeding a sustainable rate of use. The SCWA supply is confronting a variety of challenges, including potential changes in rainfall patterns due to climate change, competing uses for summer water (when demand is highest due to irrigation), by threatened and endangered fish, agricultural uses, and recreational uses. This all underscores the fact that water will be an increasingly valuable resource that requires more efficient and responsible use. In practical terms, this means that there will be much greater emphasis on indoor fixtures and appliances that use water more efficiently, and an accelerating shift to greatly reduce the use of drinking water for outdoor uses such as landscape irrigation. For example, in Cotati, approximately 40% of our annual drinking water use is for outdoor irrigation.

In 2009, the City began a local rebate program encouraging Cotati citizens to replace high water use lawn with low water use landscaping at their home or business. This new program is in addition to the existing free indoor/outdoor water audit program and free toilet and fixture retrofits program and the on-going program that provides residential washing machine rebates for qualifying washing machines .

In the longer term, the City will continue to move forward on a variety of fronts to ensure a reliable water supply into the future. These efforts include increasing water conservation efforts, further refining new development standards, and exploring ways to utilize alternative water sources, such as rainwater, greywater, and reclaimed water. In addition, the City is a partner in a U.S. Geological Survey (USGS) study of our groundwater basin. In conjunction with an on-going regional groundwater management planning process, the USGS study will provide the best available data on how our groundwater system operates and how it can be sustainably managed within the voluntary groundwater management planning framework. The City also plans to explore the feasibility of using excess drinking water from SCWA in the winter and storing it locally in our groundwater basin for use in the summer. If feasible, this would utilize drinking water in the winter when it's available and shipping it to Cotati using excess capacity in the existing regional water system. This could reduce our use of Russian River water during the summer when it is most limited, provide an additional emergency source of water, and help shield our water supply from the potential effects of climate change. It could also eliminate or significantly delay the need for the City to contribute to the construction of a costly new regional transmission system to deliver peak summer water.

The City is always looking to partner with our customers on ways to ensure we all have a safe and reliable water supply now and in the future. If you have any questions or comments, please call the City at 665.3631.



Description and Origin of Drinking Water Contaminants

This Information Applies to All Sources of Drinking Water

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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that 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, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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 U.S. Environmental Protection Agency (USEPA) and the State Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that 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 (800.426.4791).

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 drinking 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>.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 (800.426.4791).

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How to Participate

Your water system functions best when you participate in the decisions. To participate, you can attend the City Council meetings, which occur on the second and fourth Wednesdays of each month at 7:00 p.m. in the council chambers at 201 West Sierra Avenue, Cotati.

For more information about this report or for other questions about your water, please contact Damien O'Bid, Director of Public Works/City Engineer at 665.3637.

