CATHEDRAL WOOD MUTUAL WATER COMPANY CONSUMER CONFIDENCE REPORT (CCR)

June 2016 for Calendar Year 2015

We test the drinking water quality for many constituents as required by federal and state regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2015, and may include earlier monitoring data. ***Este informe contiene información muy importante sobre su agua potable en 2015. Tradúzcalo o hable con alguien que lo entienda bien.***

Cathedral Wood has 20 residential connections, and in 2015 these 20 households consumed about 1.34 million gallons of water, down about 160 thousand gallons from the prior year, thanks to the conservation efforts of the residents. Our spring water is of good quality and with treatment meets current drinking water standards. Water from the well is high in iron (Fe) and manganese (Mn) (see Appendix), and consequently the well is designated a secondary source, which means that there are limits to the length of time we can pump water from the well. We have added an additional filter and are exploring other methods to reduce the Fe and Mn to allowable levels. (This past spring (2016) another problem was noted with the well water. What appear to be suspended air bubbles resulted in elevated turbidity, in fact exceeding the regulation level of 0.3 NTU even after treatment. The well water was tested for microbial and other contamination but nothing was found other than the aforementioned Fe and Mn. However, the turbidity was/is not acceptable and we are working with a local well service to understand and correct the problem.) If you have any questions after reading through this material, or if you would like to review the test results for 2015, please call me. Sprinkled elsewhere in this report is contact information for other agencies that might be a source of good information for you.

Best wishes,
Bonnie Overgaard (831-438-5373)

Important Drinking Water Definitions

Action Level (AL) The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a community water system must follow.

Maximum Contaminant Level (MCL) The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the MCLGs or PHGs as is economically or technically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water. MCLs are enforceable standards.

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 US Environmental Protection Agency (USEPA); they allow for a margin of safety and are non-enforceable public health goals.

Maximum Residual Disinfectant Level (MRDL) The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the 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 no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS) MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements. **Secondary Drinking Water Standards (SDWS)** are MCLs for contaminants that affect taste, odor, or appearance of the water but do not affect the health at MCL levels.

Public Health Goal (PHG) The level of a contaminant below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

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

What should I know about possible contaminants in our water?

Arsenic The EPA's MCL for arsenic in drinking water is 0.010 mg/L (ppm). The EPA balances the current understanding of arsenic's possible health effects against the cost of removing the chemical. They continue to research the health effects of low levels of this element. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer. Arsenic in water may be from the erosion of natural deposits or runoff from orchards.

Lead and copper The action levels established by the EPA are 1.3 mg/L for copper and 0.015 mg/L for lead. These contaminants are the result of the corrosion of household plumbing systems or the erosion of natural deposits. Short term exposure to copper may lead to gastrointestinal distress; long term exposure may lead to liver or kidney damage. People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level. Infants and young children typically are more vulnerable to lead in drinking water than the general population. They may experience delays in physical or mental development or could show slight deficits in attention span and learning abilities. Adults may suffer kidney problems and/or high blood pressure. It is possible that lead levels in your home may be higher than other homes in the community as the result of materials used in your home's plumbing. If you are concerned about lead levels in your home's water, you may wish to have your water tested, and you can flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA's Safe Drinking Water Hotline (800-426-4791).

Nitrate Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. They can become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall and agricultural activity. If you are caring for an infant, you should ask advice from your health care provider. These chemicals in water may be due to the erosion of natural deposits or from runoff from fertilizers, leaking septic tanks, or sewage.

Turbidity Turbidity refers to suspended particles or sediment in the water. It is important because it can interfere with disinfection and provide a medium for microbial growth. Turbidity has no health effects but may indicate the presence of disease-causing organisms including bacteria, viruses, and parasites that can cause nausea, cramps, diarrhea, and associated headaches. We are required to maintain turbidity levels less than 0.3 NTUs (Nephelometric Turbidity Units) in 95% of our samples in any month. **In 2015 our numbers ranged from a low of 0.04 to a high of .22.** We have a shutoff switch at 0.3 so that water exceeding this level does not enter our supply and we can correct whatever is necessary to bring the turbidity level down.

TTHMs (Total trihalomethanes) and HAA5s (Haloacetic acids) These chemicals are by-products of drinking water chlorination. The EPA MCL for the first is 0.080 mg/L (80 ppb) and for the second is 0.060 mg/L (60 ppb). Some people who drink water containing TTHMs and HAA5s in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

See the Appendix for test results for our water.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as people undergoing chemotherapy, people 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. EPA and Center 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 800-426-4791.

Where does our water come from?

Cathedral Wood gets its water from three sources, two (surface water) streams and one (ground water) well. One stream is referred to as the "North Spring;" it is located on a property on Sugar Valley Road. The second is called the "South Spring;" it is on a property at the end of Sugarloaf Road. The well is located on Carl Drive.

Cathedral Wood first filters the water, via a pipeline flocculator and a sand filter, and then disinfects the water using chlorine. A second filter (actually a pre-filter) has been added for the well water in an effort to reduce the amount of iron and manganese.

Still! Remember the drought! Don't waste water!

Are there contaminants in the drinking water? Why?

Drinking water, including bottled water, reasonably may 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 Environmental Protection Agency (EPA) Safe Drinking Water Hotline (800-426-4791). The EPA also has prepared a citizen's guide to drinking water called *Water on Tap: A Consumer's Guide to the Nation's 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 improperly operated sewage treatment plants, septic systems, 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***, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. ***Organic*** contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and also can come from gas stations, urban storm water runoff, and septic systems. ***Radioactive*** contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The United States Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water. Individuals can get more information from the FDA.

Cathedral Wood Board Members: Dave Bertelsen, 408-219-5592; Lee Cantey, 831-332-3660; Bob Daniel (Pres), 831-439-2097; Bonnie Overgaard (Sec/Treas), 831-438-5373; Gary Peters (Vice-Pres), 831-438-1036; Adam Salvadalena, 925-518-9906; Penny Terry, 831-438-1881

Routine Bacteriological and Chemical Monitoring

Cathedral Wood draws a ***bacteriological*** sample of our water (fully-treated or *finished* water) every month to test for the presence or absence of e. coli and total coliform bacteria, rotating the sample site according to a plan filed with SC County EHS several years ago. All test samples for 2015 were negative, or absent these microbial contaminants. **If at any time sample results are positive, you will be notified immediately. And if there is a problem with the water, we will of course investigate to determine the source of the contamination and to correct the situation.**

We currently test quarterly for ***TTHMs and HAA5s***, which are by-products of the disinfection process; they are the result of the interaction of chlorine with organic particles in the water The MCLs for TTHMs are 80 ppb and for HAA5 are 60 ppb. In September 2015 our TTHMs were above the MCL, and that triggered quarterly rather than annual testing. In December 2015, both TTHMs and HAA5 were above the MCLs. For more on this topic, please see the Appendix.

In 2014 a California MCL of 10 ppb for ***Hexavalent Chromium***, also known as ***Chromium 6***, became effective. We tested all three of our sources immediately, and no Chromium 6 was detected. There currently is no requirement to repeat the test.

We are required to test every nine years for ***lead and copper.*** Last tests were done in 2007. No lead was detected in any of the five samples, and very small amounts of copper were detected in four of the five sample sites, well below drinking water limits. We will test again for these chemicals in 2016.

Cathedral Wood also tests for ***other regulated chemicals*** according to the following schedule:

Synthetic Organics…We ran this test battery in May 2012. Synthetic Organics principally are pesticides and herbicides. We did not expect to find any of these contaminants, and in fact none were detected. Due every nine years, so due again in 2021.

Inorganics, including arsenic and nitrates and nitrites… All three water sources are tested annually. See Appendix for 2015 Results.

Volatile Organics…Due every three years for surface water sources and every six years for well water. North spring and well water were done in 2015; due again in 2018 and 2021. South spring done in 2013; due again in 2016. No volatile organic contaminates were detected in any of the water samples.

Radiological (Gross Alpha)…Due every nine years. Done in 2007; due next in 2016.

Perchlorate…Tests done annually. No perchlorate detected in any source in 2015.

Appendix
Sampling Results for 2015

This table lists the drinking water contaminants that were 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 risk.

CHEMICAL OR CONSTITUENT	SAMPLE DATE	LEVEL DETECTED	MCL	PHG (MCLG)	TYPICAL SOURCE OF CONTAMINANT
Sodium (ppm)*	06/10/2015		None	None	Salt present in the water and is generally naturally occurring
No. Spring		21 ppm			
So. Spring		18 ppm			
Well		23 ppm			
Hardness (ppm)	06/10/2015		None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
No. Spring		170 ppm			
So. Spring		320 ppm			
Well		270 ppm			
Chloride** (ppm)	06/10/2015		500		Runoff /leaching from natural deposits; seawater influence
No. Spring		15 ppm			
So. Spring		14 ppm			
Well		20 ppm			
Sulfate as SO4** (ppm)	06/10/2015		500		Runoff/leaching from natural deposits; industrial wastes
No. Spring		47 ppm			
So. Spring		130 ppm			
Well		140 ppm			
Fluoride (ppm)	06/10/2015		2	1	Erosion of natural deposits; water additive that promotes strong teeth (Cathedral Wood does not add); discharge from fertilizer and aluminum factories
No. Spring		0.16 ppm			
So. Spring		0.19 ppm			
Well		0.14 ppm			
Iron** (ppb)*	06/10/2015		300		Leaching from natural deposits; industrial wastes
No. Spring		63 ppb			
So. Spring		160 ppb			
Well		**650 ppb**			
Manganese** (ppb)	06/10/2015		50		Leaching from natural deposits
No. Spring		ND***			
So. Spring		ND			
Well		**1100 ppb**			
Nitrate+Nitrite as N (ppm)	06/10/2015		10		Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
No. Spring		0.18 ppm			
So. Spring		ND			
Well		ND			
Aluminum (ppb)	06/10/2015		1000	600	Erosion of natural deposits; residue from some surface water treatment processes
No. Spring		ND			
So. Spring		83 ppb			
Well		ND			
Thalium (ppb)	06/10/2015		2	0.1	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
No. Spring		ND			
So. Spring		1.3 ppb			
Well		ND			

* ppm = parts per million, imagine 1 second in 11.5 days; ppb = parts per billion
** regulated contaminants with Secondary MCLs
*** ND = None Detected

Please see Page 4 for Test Results for Disinfection Byproducts

Disinfection Byproducts
TTHMs and HAA5s

Normal test frequency has been annual, but with test results for TTHMs exceeding the MCL in September 2015, we currently need to test quarterly until the average of four quarters is lower than the MCL. In December 2015, both TTHMs and HAA5s were above the MCLs. Even though this report is for 2015, we are including the test results for March 2016. We have not yet received the results for the most recent quarter, June 2016. At this point the averages for the last four known quarters is within regulatory limits: 74 ppb for the TTHMs and 37 for the HAA5s.

CONSTITUENT	SAMPLE DATE	LEVEL DETECTED	MCL	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
TTHMs (ppb) (Total Trihalomethanes)	04/13/2015 09/17/2015 12/16/2015 03/28/2016	61 ppb 95 ppb 92 ppb 48 ppb	80	Byproduct of drinking water disinfection	Some people who drink water containing TTHMs in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
HAA5s (ppb) (Haloacetic Acids)	04/13/2015 09/17/2015 12/16/2015 03/28/2016	28 ppb 36 ppb 72 ppb 13 ppb	60	Byproduct of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Source Water Protection Tips for Consumers

Protection of drinking water is everyone's responsibility. You can help protect this community's drinking water sources in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water sources.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use USEPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.

Water Conservation Tips for Consumers

Did you know that the average US household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature!

- Take short showers – a 5 minutes shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving – and save up to 500 gallons a month.
- Use a water-efficient showerhead. They are inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaking toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for leaks, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your children about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next year's water assessment!
- Visit www.epa.gov/watersense for more information.