



Annual
WATER
QUALITY
REPORT
Reporting Year 2012



Presented By _____
South Feather Water and Power Agency

PWS ID#: 0410006

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

There When You Need Us

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2012. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

Community Participation

We want our customers to be informed about their water utility. If you want to learn more, please call us or attend any of our regularly scheduled board of directors' meetings. They are held on the fourth Tuesday of each month at 2:00 p.m. in the Agency's boardroom, 2310 Oro Quincy Highway, Oroville, California.

Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhome) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Division of Drinking Water and Environmental Management has a Web site (www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx) that provides complete and current information on water issues in California, including valuable information about our watershed.

Substances That Could Be in 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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the California Department of Public Health (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 must 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.

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 can 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 that can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 www.epa.gov/safewater/lead.

Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Jim Coffelt or John Shipman at (530) 589-0212.

Where Does My Water Come From?

The raw water source for the South Feather Water Power Agency's distribution system is derived from the watershed of the South Fork of the Feather River and the upper portion of the Slate Creek watershed. Through a series of dams, canals, and tunnels, water is delivered to the Miners Ranch Reservoir and is extracted directly for the treatment plant.

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 or <http://water.epa.gov/drink/hotline>.

Source Water Assessment

An assessment has been completed for the water sources serving the Miners Ranch Water Treatment Plant. Our pristine water source is considered most vulnerable to active and historic mining operations but not associated with any detected contaminants.

For a copy of the complete assessment, please contact Reese Crenshaw at the DPHS Valley District Office, 364 Knollcrest Drive, Suite 101, Redding, California, 96002, or call (530) 224-4867. You may also contact Michael Glaze at South Feather Water and Power Agency, 2310 Oro Quincy Highway, Oroville, California, 95966, or call (530) 533-4578.

Pressure Regulators

South Feather Water and Power Agency maintains and operates its domestic water distribution system to minimize significant pressure differences throughout the Agency and to provide a sufficient volume of water to each customer. However, for practical purposes and the protection of customers' property, it is the Agency's policy that customers shall be responsible for installing and maintaining water pressure regulators and relief valves on their side of the meter and at their own risk and expense. This policy is designed to protect your water-service-dependent appliances and your property. Please inspect your water service plumbing and confirm that your pressure regulator is installed correctly and is in working condition.

What Causes the Pink Stain on Bathroom Fixtures?

The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, toothbrush holders, and on pets' water bowls is caused by the growth of the bacterium *Serratia marcescens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including man). The bacteria can be introduced into the house through any of the above-mentioned sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to continually clean and dry the involved surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help to eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence.

Serratia will not survive in chlorinated drinking water.

Fixtures with Green Stains

A green or blue-green stain on kitchen or bathroom fixtures is caused by tiny amounts of copper that dissolve in your home's copper plumbing system when the water sits unused overnight. Copper staining may be the result of a leaky faucet or a faulty toilet flush valve, so be sure your plumbing is in good working order.

Copper stains may also be caused by overly hot tap water. Generally speaking, you should maintain your water temperature at a maximum of 120 degrees Fahrenheit. You should consult the owner's manual for your heater or check with your plumber to determine your current heat setting. Lowering your water temperature will reduce the staining problem and save you money on your energy bill.

Also keep in mind that a tap that is used often throughout the day usually will not produce copper stains, so if you flush the tap for a minute or so before using the water for cooking or drinking, copper levels will be reduced.

Fact *or* Fiction

Water treatment began as a way to remove disease-causing agents. *(Fiction: It was only in the 1950s that scientists began to suspect that water might carry diseases. Although earlier treatment of water could make the water safer, it was mainly done merely to improve the taste, smell, or appearance of the water.)*

About half of the world's water supply is available for drinking. *(Fiction: If all the world's water were fit into a gallon jug, the fresh water available for us to use would equal only about one tablespoon.)*

Due to its unique nature, water boils at the same temperature anywhere on the planet. *(Fiction: At sea level, water boils at 212 degrees Fahrenheit, but on top of Mt. Everest, water boils at 154 degrees.)*

Water regulates the temperature of the Earth. *(Fact: As in the human body, the water in our oceans, lakes, and streams plays a major role in regulating planetary temperatures.)*

The Mississippi River is longer than the Amazon River. *(Fiction: At 3,902 miles the Mississippi River is not as long as the Amazon River, which flows for 4,000 miles.)*

Forty trillion gallons of water a day are carried in the atmosphere across the United States. *(Fact: Forty percent of the atmosphere's moisture content falls as precipitation each day.)*

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2012	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.86	0.70–0.99	No	Drinking water disinfectant added for treatment
Control of DBP Precursors [TOC] (ppm)	2012	TT	NA	0.7	0.6–0.7	No	Various natural and man-made sources
Haloacetic Acids (ppb)	2012	60	NA	20	13–24	No	By-product of drinking water disinfection
Carbon Tetrachloride (ppt)	2012	500	100	260	NA	No	Discharge from chemical plants and other industrial activities
TTHMs [Total Trihalomethanes] (ppb)	2012	80	NA	19.8	12–29	No	By-product of drinking water disinfection
Turbidity ¹ (NTU)	2012	TT	NA	0.04	0.02–0.04	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2012	TT	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2011	1.3	0.3	0.49	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2012	500	NS	3.3	1.7–4.9	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2012	1,600	NS	43	NA	No	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	2011	1,000	NS	27	NA	No	Runoff/leaching from natural deposits

OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity (ppm)	2012	22	16–28
Calcium (ppm)	2011	3.7	NA
Hardness (ppm)	2012	22	16–30
Magnesium (ppm)	2011	1.6	NA
pH (Units)	2012	6.8	6.5–7.0
Sodium (ppm)	2011	1.8	NA

¹Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Definitions

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

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

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 (SMCLs) 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. EPA.

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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

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