



ANNUAL
WATER
QUALITY
REPORT

Water testing performed in 2005

Proudly Presented By:

SOUTH FEATHER WATER
AND POWER AGENCY



SOUTH FEATHER
WATER & POWER

PWS ID#: CA0410006

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

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. The U.S. EPA/CDC (Centers for Disease Control) 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.



Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2005. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

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

Where Does My Water Come From?

The raw water source for the South Feather Water and Power distribution system is derived from the watershed of the upper 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.

A source water assessment has been completed for the water sources serving the Miner's Ranch Water System. Miner's Ranch water sources are considered most vulnerable to the following activities but are not associated with any detected contaminants: active and historic mining operations and high-density septic systems.

For a copy of the complete assessment please contact Richard Hinrichs at the DHS Valley District Office, 415 Knollcrest Drive, Suite 110, Redding, California, 96002, or call (530) 224-4867. You may also contact Michael Glaze at South Feather Water and Power, PO Box 581, Oroville, California, 95966, or call (530) 533-4578.

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.



Letter from Mike Glaze, General Manager

South Feather Water and Power Agency's (SFWPA) highest priority is to produce a dependable supply of top-quality drinking water for its customers. Not only have we replaced all of our old steel pipes in order to improve the quality of water from the treatment plant to your tap, but we are constantly upgrading the plant's equipment and technology to make it as efficient and effective as possible.

As a part of our efforts to keep your water supply dependable, SFWPA has backup generators at all the Agency's primary facilities to ensure that water is available to our customers even during the power outages that occur occasionally in our area. Additionally, we operate a photovoltaic generating system at the treatment plant that protects us against future spikes in the cost of energy. Nevertheless, even though we generate most of the electricity needed at the treatment plant with the solar system, we are still asking our customers to reduce their water usage from noon to six o'clock in the evening to make our water treatment and electricity generation as efficient and inexpensive as possible.

We are fortunate to have an abundant and pristine water source as well as substantial storage facilities. We ask that all of our customers help protect the streams and reservoirs that comprise the Agency's water supply system, including being vigilant and reporting any suspicious activity that occurs in the vicinity of Agency's facilities. The assistance of our customers will enable us to maintain and guarantee the exceptional water quality we enjoy, now and into the future.

Substances That Might Be in 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.

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Department of Health Services (Department) prescribe regulations that limit the amount of certain substances in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water, which 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 substances. The presence of contaminants does not necessarily indicate that water poses a health risk.

Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, which 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, which 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, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants, which 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.



Contamination from Cross-Connections

Cross-connections that could contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Fertilizers, cesspools, or garden chemicals may contaminate garden hoses that are left lying on the ground. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test each backflow preventer to make sure that it is providing maximum protection.

For more information, visit the Web site of the American Backflow Prevention Association for a discussion of current issues (www.abpa.org).

QA

Q. Can Other Disinfectants Be Used to Kill Bacteria?

A: Yes, ozone and chloramines are also used to disinfect drinking water. Ozone is among the most powerful of all drinking water disinfectants, but because it does not provide continuous disinfection throughout the distribution system, it only works while the water is inside the treatment plant. A second disinfectant, like chlorine, must also be used to prevent or inhibit microbial growth in the distribution system. When used at the treatment plant, ozone kills *Giardia* and *Cryptosporidium* and can help control objectionable tastes and odors.

Chloramine, sometimes referred to as combined chlorine, is formed from chlorine and ammonia under controlled conditions. Its disinfectant properties are somewhat weaker than chlorine, but it is still effective. Chloramine has three primary advantages: (1) it persists in the distribution system, helping to prevent or inhibit microbial growth; (2) it forms lower levels of disinfectant by-products; and (3) its taste and odor are less noticeable at the tap.

Q. Will You Tell Me If There Is Something Wrong With the Water or If It's Unsafe to Drink?

A: We will let you know of any problems that could affect your health or the health of your family. We are prepared to go door-to-door to alert consumers if a neighborhood water-quality problem occurs. We are also prepared to enlist the help of television, radio, and local newspapers to promptly advise consumers of any water-quality problems. In the past, on those rare occasions when a problem has come up, we have used all of these techniques to alert consumers.

Q. How Long Can I Store Drinking Water?

A: The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

Q. How Are Bacteria That Can Make People Sick Kept out of Drinking Water?

A: Chemicals called disinfectants are added to the drinking water at the treatment plant. Two commonly used chemicals are chloramine and free chlorine. Chloramine, the combination of ammonia and chlorine, forms a stable bond that keeps a disinfectant residual throughout the entire distribution system. Free chlorine is an aggressive chemical that aids in the disinfection of the flushed water mains.

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 table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less 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.

PRIMARY DRINKING WATER STANDARD (Regulated In Order To Protect Against Possible Adverse Health Effects)

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2005	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.90 <i>(average)</i>	0.2-2.3	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2005	TT	NA	0.5 <i>(average)</i>	0.3-1.2	No	Various natural and manmade sources
Haloacetic Acids (ppb)	2005	60	NA	22.8 <i>(average)</i>	13-37	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2005	80	NA	19.8 <i>(average)</i>	17-26	No	By-product of drinking water chlorination
Turbidity (NTU) ¹	2005	TT	NA	1.52	0.03-1.52	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 30 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2005	1.3	0.17	0.58	0	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2005	15	2	6.4	0	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY DRINKING WATER STANDARD (Regulated In Order To Protect The Odor, Taste And Appearance Of Drinking Water)

SUBSTANCE (UNITS)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2005	500	NS	3.2 <i>(average)</i>	1.6-4.2	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µmhos/cm)	2002	1,600	NS	50	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2002	500	NS	5.1	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS] (ppm)	2005	1,000	NS	58	NA	No	Runoff/leaching from natural deposits

¹ Turbidity 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. During the reporting year, a minimum of 99.4% of all samples taken to measure turbidity met water quality standards.

Table Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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 (SMCL) 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 level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

NA: Not applicable

ND: Not detected

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

PDWS (Primary Drinking Water Standard): MCLs 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).

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

µmhos/cm (micromhos per centimeter): A measure of electrical conductance.